TELSTRA CORPORATION LIMITED

Fixed Services Review: Response to the Commission's Discussion paper on the Declaration Inquiry

Public version

6 September 2013

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES DECLARATION INQUIRY

PAGE 1/60

**IT'S HOW
WE CONNECT**

Contents

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 2/60

1 Overview

Telstra welcomes the opportunity to provide this submission to the Australian Competition and Consumer Commission's (**Commission**) *Fixed Services Review Discussion Paper on the Declaration Inquiry*, July 2013 (**Discussion Paper**) relating to the declaration of fixed line services, which forms part of its overall fixed services review (**Declaration Inquiry**).

The fixed line services that are the subject of the Declaration Inquiry (unconditioned local loop service (**ULLS**), line sharing service (**LSS**), local carriage service (**LCS**), wholesale line rental service (**WLR**), public switched telephone network originating access service (**PSTN OA**) and public switched telephone terminating access service (**PSTN TA**)) were last declared in 2009.

Since 2009, the supply of fixed services (and telecommunication markets more broadly) has continued to undergo significant changes. During this time, end-users have enjoyed lower prices, greater choice and greater competition in the supply of fixed line services – including voice and broadband services – driven by:

- continuing investment by service providers in DSLAM-based infrastructure – expanding the reach of competitive fixed voice and broadband services and the depth of competitive capacity in existing areas;

- service providers expanding their offerings of value-added and innovative services – including naked DSL offerings, voice and broadband bundle offers, internet protocol television (**IPTV**) and video on demand offerings and business-specific offers;

- mobile networks and mobile services providing end-users with a compelling set of competitive substitutes to fixed line voice (and increasingly in certain areas, fixed line broadband) services; and

- industry consolidation resulting in competitors with greater national reach and broader service offerings.

By far the most significant development affecting the industry since 2009 has been the Australian Government's announcement (and subsequent commencement of the deployment) of a wholesale only National Broadband Network (**NBN**). The NBN represents a fundamental change to the provision of fixed line telecommunication services in Australia. The deployment of the NBN will:

- result in the general replacement of the Telstra-owned copper customer access network (**CAN**) with a structurally separated fibre-based access network;

- involve the progressive replacement of traditional, circuit-switched PSTN infrastructure with IP technology; and

- introduce (by design) a more efficient access structure compared to the PSTN, based on 121 points of interconnect (**PoI**) and a single nationally available set of NBN Co access services.

Given these significant changes, it is important that the Declaration Inquiry (and broader fixed services review) provides the necessary regulatory certainty to enable Telstra and other service providers to focus on meeting the evolving needs of end-users. In this context, Telstra considers that the Declaration Inquiry should focus on three key issues:

- providing service providers with a stable regulatory platform – enabling them to make the necessary investments to support the products and services needed to meet the evolving needs of end-users;

- ensuring a smooth transition to the NBN; and

- minimising uncertainty and regulatory risk.

Maintaining a stable platform for the industry, allowing service providers to focus on the evolving demands of end-users

As set out above, the supply of fixed line voice and broadband services in Australia has continued to develop since 2009. This development has been driven by increasing competition, investment and innovation among service providers. Competition has been enabled by the current suite of declared fixed line services, which provide access seekers with a number of ways to provide services to end-users connected to the PSTN. In particular:

- direct access services: ULLS and LSS provide access seekers with the ability to connect their equipment (i.e. DSLAMs) directly to the copper loop that connects end-users' premises to the Telstra exchange. In other words, these services provide direct access to the enduring bottleneck;

- indirect access services: WLR/LCS and PSTN OA (for pre-select calls) services provide access seekers an ability to provide voice services to end-users connected to the PSTN by reselling Telstra's PSTN basic access and local calling service (WLR/LCS), whilst allowing them to utilise their own voice switching infrastructure for the provision of long distance and other call types. These services provide indirect access to the primary enduring bottleneck.[1]

- interconnection services: PSTN TA and the PSTN OA (for 13/1300 and 1800 calls)[2] allow service providers to hand over voice calls between the PSTN and other telecommunication networks.

The table below sets out what Telstra considers is an appropriate characterisation of declared fixed line services provided utilising the PSTN.

Table 1: Declared fixed line services: the PSTN

	PSTN
Direct Access Services	ULLS, LSS
Indirect Access Services	WLR/LCS, PSTN OA (Pre-select) WDSL
Interconnection Services	PSTN TA, PSTN OA (13/1300, 1800)

---

[1] WDSL (although not subject to the Declaration Inquiry) is also an indirect access service that enables access seekers to provide broadband services to their end-users by utilising Telstra's DSL network.

[2] In addition to providing pre-select (and override) access, PSTN OA can also be used by access seekers to provide "special services calls". These are calls from directly connected end-customers on the Telstra network to inbound numbers, for example, 13/1300 (local rate numbers) and 1800 (toll free) numbers. The use of PSTN OA to provide 13/1300 and 1800 calls is, in many respects, more analogous to PSTN TA. Therefore the regulatory issues involved are more aligned to issues of any-to-any connectivity (as for PSTN TA) than for the pre-select PSTN OA call case.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 4/60

These declared fixed line services help to facilitate competition across the relevant markets for fixed line telecommunication services. Although the PSTN was not originally designed for the purpose of providing access to third parties and for the purpose of enabling the competitive supply of voice and other services, these declared services facilitate a range of business models offered by competitive service providers:

- The direct access services allow access seekers to provide significant differentiation and customisation of their retail and wholesale voice, broadband and other services. Where the supply of services via ULLS and LSS is technically and economically feasible (particularly in (CBD and metropolitan areas), access seekers have achieved significant gains in market share, with end-users benefiting from intense competition and new, innovative service offerings such as naked ADSL;

- The indirect access services provide access seekers with an efficient means of reaching end-users in circumstances where the end-user is otherwise unable to be supplied via ULLS or LSS (because, for example, ULLS and LSS-based supply is not technically possible or is uneconomic). Although these indirect access services do not provide access seekers with the same level of control or ability to differentiate their service offerings as they do using ULLS or LSS, they can also be utilised by a wider range of potential access seekers, with entry being possible at a lower scale than for direct access services; and

- The current fixed line voice interconnection services have proven sufficiently robust and flexible to support a wide range of carriers, including carriers utilising IP-based networks for the provision of voice services.

Together, the current fixed line declared services arrangements have provided a platform for increased competition in markets for the supply of services over the PSTN. The current market outcomes with respect to fixed line services supplied over the PSTN – particularly in areas that are subject to intensive competition via direct access services (principally CBD and metropolitan areas) – indicate that substantive changes to the declarations (or the addition of new declared services) are not warranted at this time and would not be in the long-term interest of end-users (**LTIE**).

In general, the Commission should maintain the current suite of declared fixed line access services. Specifically:

- the longstanding declarations of legacy PSTN-based services remain appropriate and well-targeted at this time of industry transition — continuation of the existing declarations will promote stability and certainty for the industry;

- there is no need to extend the PSTN regulatory framework (particularly in relation to indirect access services) to cover NBN-based services – the regulation of NBN direct access services available to all service providers (not just Telstra) on the same basis, provides sufficient access to the enduring bottleneck to ensure effective competition; and

- given the need for certainty and stability the Commission should however make certain minor changes to the existing service descriptions to better clarify that the scope of the declarations of WLR, LCS and PSTN Pre-select OA apply in respect of the legacy PSTN network only. These changes are set out in Appendix 7.

The Commission should maintain the long-established carve out of WLR/LCS services in CBD exchange service areas (**ESAs**). The unique demographic and demand qualities exhibited in CBD ESAs has not only driven intensive competition in markets for the supply of voice and broadband services via the use of ULLS and LSS, but has also supported competition via a number of alternative fibre-based access networks.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 5/60

IT'S HOW
WE CONNECT

Facilitating a smooth and effective transition from the PSTN to the NBN

Over the past 15 - 20 years, there have been dramatic changes in technology, demand, and industry structure. Currently, a further – and fundamental –shift is taking place in the telecommunications sector with the rollout of the NBN. Recognition of these changes and the fundamental paradigm shift underway is critical to sound regulatory decision-making.

Over the next decade, the NBN will replace Telstra's PSTN CAN as the predominant fixed line access network in Australia. Critically, although the primary enduring bottleneck with respect to the PSTN and NBN remains the same (i.e. the "last mile" access lines that connect end-user premises to each respective network), the appropriate approach to the regulation of access to the bottleneck is different for the new network due to:

- the different technologies through which it operates;

- the fundamentally different market structures underpinning the NBN; and

- the different means by which voice services are supplied over the NBN.

It is incorrect to assume that the regulation of a wholesale service provided using Telstra's legacy PSTN means that similar services provided over the NBN also warrant regulation.

Although the fixed line service declarations promote the LTIE in the current PSTN environment, the deployment of the NBN raises legitimate questions as to whether the current declared fixed line services and their service descriptions remain appropriate. In considering this issue, it is necessary to consider the following questions:

1   Whether or not additional declared services are required in order to promote the LTIE for those end-users supplied services over the NBN?

2   If an additional declared service is determined to be required, then what is the nature of this service? Should the definition of the current indirect access services (specifically WLR/LCS) be expanded to cover services provided over the NBN?

3   Do current fixed line interconnection arrangements continue to operate effectively (and in the LTIE) in an NBN environment?

In addressing these questions, the following facts are relevant:

- the enduring bottleneck with respect to the NBN is the subject of structural separation from all retail service providers (**RSPs**), and access on a non-discriminatory basis is regulated by the Commission;

- unlike the PSTN, the NBN has been designed at the outset to provide effective entry and competition on a national basis through direct access services. By design, NBN Co access services are likely to be the only necessary declared services required to address access to the enduring bottleneck over the NBN;

- the market for indirect access services is likely to be significantly smaller in the NBN context than in the PSTN context, and to the extent that indirect access services over the NBN are required, they will be provided in a highly competitive market – with multiple service providers commercially offering a range of aggregation, resale and other wholesale services; and

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 6/60

- current fixed voice interconnection services will continue to provide an effective and efficient means of interworking between different carriers on both the PSTN and the NBN.

Telstra's responses to the questions outlined above are considered in greater detail below.

Are additional declared services required in order to promote the LTIE for those end-user supplied services over the NBN?

There is no evidence to suggest that the Commission needs to declare a second access service to address bottleneck issues with respect to NBN-connected end-users. This view is based on two key considerations.

First, the NBN itself (in stark contrast to the PSTN) has been designed to maximise contestability and competition for all access seekers through the NBN Co access services. Second, despite the relatively early stages of the NBN rollout, all indications are that the market for NBN-based services is developing in a highly competitive manner, both at the retail and wholesale levels. In this regard:

- the design of the NBN provides for significant efficiencies in access compared to the PSTN. Access seekers will more readily be able to achieve a broad geographic footprint via NBN Co's access services being made available at the 121 PoIs, in comparison to the direct access services provided over the PSTN (ULLS and LSS). As a result, the relative importance of indirect access services provided over the NBN (such as aggregation services) will be reduced compared to the importance of these services in the PSTN context;

- to the extent that service providers choose to use indirect access services, a number of providers have already established effective, commercial aggregation offerings that are supporting the entry and expansion of smaller service providers into the NBN market; and

- the NBN breaks the nexus between network access and the Telstra voice service (aside from ULLS) that is inherent in from the design of the PSTN. As the NBN is an IP network, there is a clear separation between the underlying access and transport layer and the services layer over which voice (and other services) can be provided.

The design of the NBN promotes effective competition via the NBN Co Access Service

The NBN has been designed at the outset to maximise competition on a national basis through the direct access service offered by NBN Co. The NBN Co Access Services (which are not subject to the current declaration inquiry), provide RSPs with a layer 2 Ethernet bitstream service that connects to the NBN at one of 121 contestable PoIs.

In comparison to the PSTN, service providers can economically achieve national presence over the NBN through the use of NBN Co access services. While ULLS and LSS have technical and economic barriers that limit their effectiveness outside of CBD and metropolitan areas, service providers making use of the NBN Co's access services can reach all end-users served through the network.

Although the deployment of the NBN is at a relatively early stage, market evidence to date clearly shows that access seekers have found it economically viable to connect directly to the NBN at the NBN Co PoIs. In particular:

- currently, 48 service providers have connected end-users on the NBN across NBN Co's active PoIs;

- in several cases, service providers have established a presence at NBN Co PoIs even prior to end-users being ready for service in areas served by the PoI; and

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 7/60

- more than 90% of end-users connected to the NBN Co fibre access service already have a choice of at least 10 distinct service providers.[3]

The market for indirect access services will be smaller on the NBN than for the PSTN – but also far more competitive

Even though available market evidence suggests that a significant number of service providers are availing themselves of direct access to the NBN via the NBN Co PoIs, there is also clear evidence of emerging and highly competitive services for the supply of indirect access services. Indirect access services over the NBN include:

- backhaul/aggregation services (i.e. where a service provider aggregates end-user traffic from a number of NBN Co PoIs and transports it to a smaller number of more centralised PoIs for handover to its wholesale customer); and

- layer 3 voice and broadband resale services that combine both an aggregation element as the supply of a voice and/or broadband service offering that wholesale customers are able to "resell" to their end-users.

The fundamentally different access design of the NBN when compared to the PSTN means that, to the extent that a need exists for these indirect access services, the market for such services will be far smaller and yet more competitive in their provision than for the PSTN. Despite the market for indirect access services being relatively smaller over the NBN than for the PSTN, it is already highly competitive, with around a dozen providers of aggregation and other wholesale services already participating in the market.
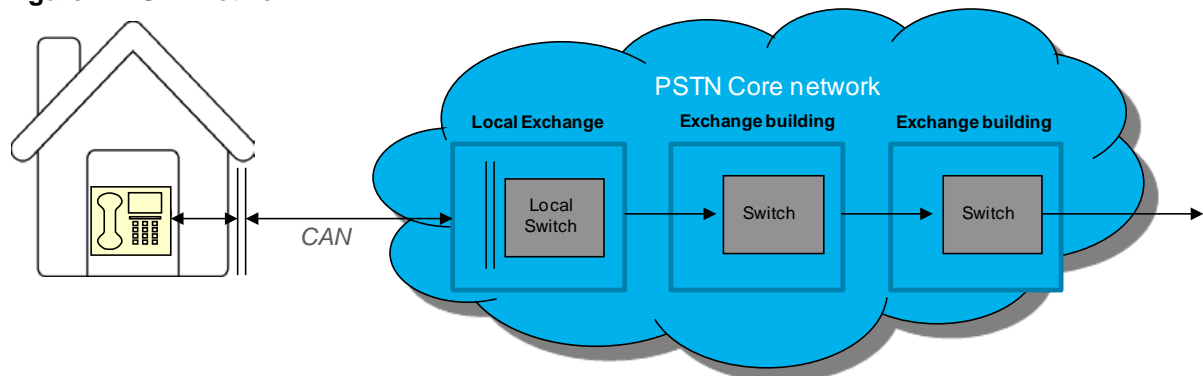
Because many providers will be able to achieve a national reach via the NBN Co direct access services, they will also be able to compete nationally in the provision of wholesale indirect services. This contrasts to the situation with the PSTN, where, outside of CBD and metropolitan areas, there is limited competition in the provision of indirect access services because service providers (other than Telstra) must first be able to access ULLS or LSS and establish the related infrastructure necessary to provide a wholesale, indirect access service that would compete with Telstra's WLR/LCS and WDSL services.

The NBN breaks the nexus between network access and Telstra's voice service that is inherent on the PSTN

On the PSTN, access seekers are unable to bypass Telstra's voice switching infrastructure unless they bypass all active equipment within the network by connecting at the Main Distribution Frame (**MDF**) at the exchange through ULLS. As a result, the basic access service (WLR) is integrated with Telstra's voice service. Access seekers that interconnect with Telstra and acquire PSTN OA (pre-select) are able to by-pass parts of the Telstra voice service (e.g. long distance calls), but fundamentally they are tied to the underlying Telstra voice service.

This link between the voice service and the underlying access service is a technical feature of the PSTN, with no physical separation between the switching of traffic through the network and the provision of the voice service. Both of these activities are carried out within the PSTN switch infrastructure, as illustrated by Figure 1 below.

---

[3] See Appendix 2.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 8/60

Figure 1: PSTN network

This is not the case with IP networks, including the NBN and the IP core networks that Telstra and other RSPs will use to supply NBN-based services. Unlike the PSTN, the transport of data packets is carried out through infrastructure (the so called "transport layer") that is separated from the infrastructure used to enable services to end-users (as illustrated in Figure 2 below).

Figure 2: NBN/IP network
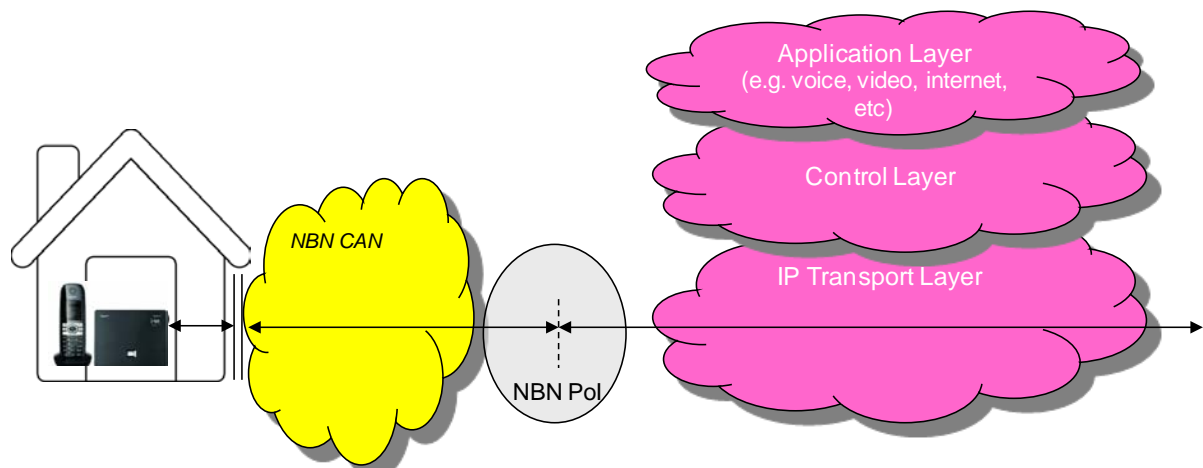
Accordingly, even if the Commission were to reach the view that a secondary indirect access service should be declared (in addition to the direct NBN Co access services), then the resulting declared service should address the need for aggregation of traffic at the transport layer to more centralised points of interconnect.

As there is no additional requirement to declare an NBN wholesale voice service, it would be equally inappropriate and not in the LTIE to extend the declaration of the WLR/LCS service to apply to the NBN.

In considering the potential impacts of regulation of a wholesale voice service over the NBN, Professor Martin Cave notes the risks and potential costs that unnecessary and poorly targeted access regulation can have on the development of competitive service offerings and effective competition:

> *"Requiring any provider to supply a regulated product risks distorting the market place and stifling innovation, as the regulator typically defines the attributes of the regulated product in a fashion which may pre-empt rivals' offerings and curtails or eliminates the market discovery process from which customers benefit. I consider that in this case*

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 9/60

forbearance from regulation is in the long term interests of end users."[4]

Do current fixed line interconnection arrangements continue to operate effectively and in the LTIE in an NBN environment?

In Telstra's view, the deployment of the NBN does not necessitate a change to the current fixed line interconnection service descriptions.

The current fixed voice interconnection arrangements (as specified within the PSTN TA and PSTN OA service descriptions) support robust inter-working arrangements that have enabled a wide range of different voice service providers (including IP-based service providers) to interconnect their traffic efficiently.

Interconnection is the process by which call traffic is transferred between network operators. It is achieved through industry agreement on network technology, technical standards and interworking arrangements. Fixed line interconnection arrangements are regulated through the PSTN TA and PSTN OA (13/1300 and 1800) declared services.

Importantly, although the current arrangements specify a PSTN-based CCS7 protocol for the interconnection of voice traffic between networks, the current arrangements have been able to support a highly diverse range of interconnecting carriers, including traditional PSTN-based voice carriers, IP-based providers and mobile operators.

The rollout of the NBN will result in a steady increase in the number of IP-based voice services (as end-users are migrated from traditional circuit switched PSTN voice services to IP-based voice services provided by carriers over the NBN). As is the case for IP-based voice networks today, the existing CCS7 interconnection standards will facilitate the efficient hand over of voice calls between interconnecting networks.

Table 2 below summarises how the NBN Co Access Services and the current declared fixed line services relate to (and should continue to relate to) the PSTN and the NBN.

Table 2: Declared fixed line services: the PSTN and the NBN

	PSTN	NBN
Direct Access Services	ULLS, LSS	NBN Co Access Services
Indirect Access Services	WLR/LCS, PSTN OA (Pre-select) WDSL	
Interconnection Services	PSTN TA, PSTN OA (13/1300, 1800)	

As set out above:

- direct access services (ULLS and LSS) provide access seekers with the ability to connect their equipment (i.e. DSLAMs) directly to the copper loop that connects end-users' premises to the Telstra exchange. In other words, these services provide direct access to the enduring bottleneck;

- indirect access services,(WLR, LCS and PSTN OA for pre-select calls) provide access

---

[4] Report by Professor Martin Cave entitled "The declaration of resale services provided over the NBN: a response to aspects of the Commission's Fixed Services Review – Discussion Paper on the Declaration Inquiry", dated 30 August 2013, (Appendix 4) (**Cave Report**).

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 10/60

seekers an ability to provide voice services to end-users connected to the PSTN by reselling Telstra's PSTN basic access and local calling service (WLR/LCS), whilst allowing them to utilise their own voice switching infrastructure for the provision of long distance and other call types. These services provide indirect access to the primary enduring bottleneck.[5]

- interconnection services (PSTN TA and PSTN OA for 13/1300 and 1800 calls) allow service providers to hand over voice calls between the PSTN and other telecommunication networks.

Minimising uncertainty and reducing regulatory risk

When considering issues in the Declaration Inquiry, the Commission should bear in mind two key principles in order to minimise uncertainty and consequent regulatory risk:

- access regulation should only apply where there is a clearly defined problem – ex ante access regulation should only apply where there is a clear problem with competitive access to a clearly defined enduring bottleneck; and

- the scope of access regulation should be clearly defined – access providers and access seekers need to understand clearly those services, infrastructure and investments that are subject to regulation and those that are not.

With respect to the first principle, Telstra welcomes the Commission's position – outlined in its Discussion Paper – of only regulating enduring bottlenecks as outlined in its Discussion Paper. As Professor Stephen King concludes in his report:

> "Access regulation is only required where a relevant facility involves natural monopoly technology and the service passes both the essentiality tests. If not, then there are no structural impediments to competition through a 'bottleneck' that need correcting."[6]

This is because:

> "if a facility does not involve natural monopoly technology then competitive provision of the relevant good or service is both feasible and economically desirable…
>
> if the good or service produced by a facility does not satisfy both 'essentiality' tests, then the owner of the essential facility is constrained from exercising monopoly power or engaging in anti-competitive conduct due to either direct competition from substitute products or indirect competition because substitutes exist to products that use its input."[7]

With respect to the second principle, Telstra considers it is important that the Commission delineates a set of declared services for which there is a clear, agreed understanding as to the infrastructure and services to which access has in fact been declared. This issue is particularly relevant with respect to the current PSTN indirect access services (WLR/LCS and PSTN OA).

Although the WLR/LCS and PSTN OA services were declared with the clear intent to provide access to the Telstra circuit-switched PSTN, the imprecise wording of the service descriptions, coupled with the emergence of IP-based networks (notably the NBN) has resulted in a degree of uncertainty as to the scope of their application. This uncertainty is clearly not in the LTIE.

---

[5] WDSL (although not subject to the declaration inquiry) is also an indirect access service that enables access seekers to provide broadband services to their end users by utilising Telstra's DSL network.
[6] Report by Professor Stephen King entitled "*Report on essential facilities, access regulation and value-added wholesale services on the NBN"* dated 1 August 2013 (Appendix 3) (**King Report**), p 7. See also the Discussion Paper, p 12.
[7] King Report, Appendix 3, p 7.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 11/60

The inherent uncertainty that results reduces incentives to invest in wholesale services over the NBN and may also distort the build/buy decisions of service providers looking to enter the market. As noted by Professor Stephen King:

> "The threat of regulation will depress the investment in developing NBN-based wholesale services. The risk of future regulation will make service providers reluctant to invest in these services and this will impede the development of competition in these services...
>
> ... It would be economically inefficient and clearly not in the long-term interest of end users if the threat of regulation prevented the development of effective competition."[8]

In order to address this uncertainty, Telstra submits that the Commission should modify the relevant service descriptions to the extent necessary to ensure that their scope is explicitly limited to the PSTN.

Further regulation of facilities access is unnecessary

Telstra considers that any additional regulation of facilities access is unwarranted and would not be in the LTIE. This is because facilities access – including Telstra Equipment Building Access (**TEBA**), ducts access and external interconnect cables (**EIC**) – is already regulated through long established and well understood mechanisms, specifically:

- Parts 3 and 5 of Schedule 1 of the *Telecommunications Act 1997* (Cth) (**Telco Act**). Part 3 of the Telco Act sets out the regime for access to supplementary facilities, which includes exchange buildings (whether owned by Telstra or another carrier). Part 5 of the Telco Act sets out the regime for access to telecommunications transmission towers and underground facilities, which includes ducts access.

- The Commission itself established the Facilities Access Code (the **Code**) in 1999 to govern how access to certain telecommunications facilities owned by telecommunications carriers (including mobile towers and underground ducts) is provided to other carriers seeking to install their equipment on or in those facilities. That Code is currently undergoing review by the Commission and it is notable that a number of respondents to the Commission's inquiry have noted that the Code has worked well in facilitating negotiations between parties.[9]

Telstra acknowledges that, in the past, access seekers have faced difficulties in accessing some of its exchange buildings, however that issue was resolved in 2008.[10] One of the consequences of that issue was that the Commission imposed further regulation upon Telstra via the 'Access to Telstra Exchange Facilities RKR'. In addition, Telstra's Structural Separation Undertaking (**SSU**) imposes further equivalence requirements upon Telstra with respect to exchange capping and the management of queues to access exchanges. In other words, further regulation has *already* been put in place to address issues pertaining to facilities access and Telstra sees no need for any additional regulation. Any such regulation will simply duplicate or be inconsistent with the existing regulation and in either case, the burden and hence cost of that regulation would likely outweigh its benefit.

In addition, Telstra notes that the Commission appears to believe that it could further regulate facilities access through either separate declaration of facilities access or through the inclusion of appropriate terms and conditions in the Final Access Determinations (**FADs**) for the fixed line services. Importantly, Telstra believes that the latter option is *only* open to the Commission if it can establish a sufficiently direct nexus between the facilities access in question and the relevant declared service. In other words,

---

[8] King Report, Appendix 3, p 26.
[9] Commission, *Facilities Access Code,* An ACCC Draft Decision to *vary* "A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities (October 1999)", May 2013, p 4.
[10] See *Australian Competition and Consumer Commission v Telstra Corporation Limited* [2010] FCA 790 (28 July 2010).

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 12/60

it would be wrong for the Commission to simply assume that it can regulate all facilities access through the FADs for the fixed line services.

Telstra notes that the object of Part XIC of the *Competition and Consumer Act 2010* (Cth) (**CCA**) is to promote the long term interests of end-users of *carriage services or services provided by means of carriage services.*[11] Telstra believes that the proper scope of Part XIC should therefore be targeted carefully to focus on the regulation of the supply of *carriage services* to address bottleneck issues with respect to particular infrastructure. Facilities access is *not* itself a carriage service (i.e. a service involving the carriage of communications). In some circumstances, if it can be established that access to a facility is a direct and necessary input into the supply of a regulated carriage service (e.g. ULLS) then such a facility could come within the scope of Part XIC.[12] However, in these circumstances it is not necessary or appropriate, in Telstra's view, to separately declare such access. This makes sense given the underlying carriage service that is declared represents the means of addressing the relevant enduring bottleneck problem and related services must have a relevant nexus to such carriage services. In the event that the access to a facility does not relate to the supply of a declared carriage service, then the appropriate regulatory regime that relates to the sharing of facilities has been separately established under the Telco Act. There is no need, nor would it be appropriate, to separately declare access under Part XIC.

---

[11] Refer to section 152AB of the CCA.
[12] Refer to the Commission's *ULLS and LSS Access Disputes, Chime Communications Pty Ltd/Telstra, Reasons for Final Determination*s, November 2012.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 13/60

1   Structure of submission

The remainder of this submission is structured as follows:

- **Section 2**: Approach to the scope of inquiry, assessment framework, market definition and the competitive landscape. Section 2 sets out Telstra's views in respect of each issue;

- **Section 3**: Consideration of regulation of wholesale services over the NBN. Section 3 concludes that there is no need to declare a second access service with respect to NBN-connected end-users;

- **Section 4:** Regulation of LCS and WLR service. Section 4 concludes that the LCS and WLR should not be regulated in CBD ESAs. Further, the current service descriptions should be amended to clarify that they apply to the legacy PSTN network only;

- **Section 5**: Regulation of PSTN OA and PSTN TA services. Section 5 concludes that the PSTN pre-select / override obligation should only apply in respect of the legacy PSTN network only (and the service description should be amended accordingly) and that the current interconnect arrangements operate effectively, and therefore do not require any changes;

- **Section 6**: Regulation of ULLS and LSS. Section 6 concludes that declaring the ULLS and LSS for the next regulatory period and their existing service descriptions are appropriate;

- **Section 7**: Regulation of facilities access. Section 7 concludes that facilities access is already well regulated by legislative and industry mechanisms, thus declaration under Part XIC of the CCA is neither necessary nor appropriate; and

- **Section 8**: Length of declaration. Section 8 concludes that a declaration period of 3-5 years is appropriate.

This submission is also supported by a number of appendices:

- **Appendix 1:** Responses to questions in the Discussion Paper;

- **Appendix 2:** Market information report;

- **Appendix 3:** Independent report prepared by Professor Stephen King (**King Report**);

- **Appendix 4:** Independent report prepared by Professor Martin Cave (**Cave Report**);

- **Appendix 5:** Technical witness statement (Fixed networks) (**Fixed Network Statement**);

- **Appendix 6:** Technical witness statement (PSNT OA and TA) (**PSTN OA and TA Statement**); and

- **Appendix 7:** Mark ups to service descriptions.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 14/60

2   Regulatory approach

2.1. Services subject to the Declaration Inquiry

The declaration of the fixed line services which are the subject of the declaration inquiry are due to expire on 31 July 2014.

The Commission has indicated that, for the purposes of the Declaration Inquiry, it will divide the existing declared fixed line services into three groups, namely:

- Access services - ULLS and LSS provided over copper wire;

- Resale services - LCS and WLR; and

- Interconnection services - PSTN OA and TA.

Although the Commission's taxonomy recognises that different declared fixed line services serve different purposes, Telstra is concerned that these groupings are not conducive to a clear discussion of the issues that arise in relation to each of them. Telstra has set out what it considers to be a more useful grouping below:

Table 3: Declared fixed line services subject to the Fixed Services Review

	PSTN
Direct Access Services	ULLS, LSS
Indirect Access Services	WLR/LCS, PSTN OA (Pre-select) WDSL[13]
Interconnection Services	PSTN TA, PSTN OA (13/1300, 1800)

As set out above:

- direct access services (ULLS and LSS) provide access seekers with the ability to connect their equipment (i.e. DSLAMs) directly to the copper loop that connects end-users' premises to the Telstra exchange. In other words, these services provide direct access to the enduring bottleneck;

- indirect access services (WLR/LCS and PSTN OA for pre-select calls) provide access seekers an ability to provide voice services to end-users connected to the PSTN by reselling Telstra's PSTN basic access and local calling service (WLR/LCS), whilst allowing them to utilise their own voice switching infrastructure for the provision of long distance and other call types. These services provide indirect access to the primary enduring bottleneck;[14] and

- interconnection services (the PSTN TA and the PSTN OA for 13/1300 and 1800 calls)[15]

---

[13] WDSL is not subject to this Declaration Inquiry.

[14] WDSL (although not subject to the declaration inquiry) is also an indirect access service that enables access seekers to provide broadband services to their end users by utilising Telstra's DSL network.

[15] In addition to providing pre-select (and override) access, PSTN OA can also be used by access seekers to provide "special services calls". These are calls from directly connected end-customers on the Telstra network to inbound numbers, for example, 13/1300 (local rate numbers) and 1800 (toll free) numbers. The use of PSTN OA to provide 130/1300 and 1800 calls is, in many respects, more analogous to PSTN TA. Therefore the regulatory issues

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 15/60

allow service providers to hand over voice calls between the PSTN and other telecommunication networks.

2.2. Declaration of new services

The Commission has requested submissions on whether the existing service descriptions for WLR, LCS, PSTN OA and PSTN TA should be expanded to include equivalent services provided over the NBN. If each service description is so expanded, that means that new services are being declared, rather than the same services being re-declared. The Commission has also requested submissions on whether it should separately declare facilities access. For either of these purposes, the Commission must follow the procedure set by section 152AL(3) of the CCA.

That section provides that the Commission may declare an eligible service if:

- the Commission has held a public inquiry;

- the Commission has prepared a report about the inquiry;

- the report was published during the 180 day period ending when the declaration was made; and

- the Commission is satisfied that the making of the declaration will promote the LTIE.

Accordingly, in order to declare any such new service, the Commission must be satisfied that a declaration of the whole of that service will promote the LTIE, both in respect of the service provided over the PSTN and the service provided over the NBN.

2.3. Assessment framework

2.3.1. Introduction

The Commission may only declare a specified eligible service pursuant to section 152AL of the CCA after it holds a public inquiry and "is satisfied" that the declaration will promote the LTIE. Section 152AB(2) of the CCA places an obligation on the Commission that, when it is deciding whether the declaration will promote the LTIE,[16] it **must** have regard to the extent to whether the declaration is likely to result in the achievement of the following objectives:

- promotion of competition in the markets for telecommunications services;

- achievement of any-to-any connectivity; and

- encouragement of the economically efficient use of, and investment in, infrastructure by which services are supplied.

In undertaking this exercise the Commission, in its Discussion Paper, notes that it uses well-established economic principles to analyse the expected impacts of regulating a service. The relevant principles are as follows:

- whether the relevant infrastructure exhibits **enduring bottleneck characteristics** that affect

---

involved are more aligned to issues of any-to-any connectivity (as for PSTN TA) than for the pre-select PSTN OA call case.

[16] The expression 'long-term' is not defined in the CCA. In its guide called *Telecommunications services – Declaration provisions – a guide to the declaration provisions of Part XIC of the Trade Practices Act,* July 1999, at p 34, the Commission took the view that it "*should be interpreted from an economic perspective. Accordingly ... the long-term is not a set period, but rather the time taken for the substantive consequences of a declaration decision to unfold*".

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 16/60

competition, any-to-any connectivity or efficiency and investment;

- whether access will promote **economic efficiency and competition**; and

- whether infrastructure operators are **vertically integrated** and the effect of this on competition, any-to-any connectivity or efficiency and investment.

In its 1999 guide to the declaration provisions of Part XIC of the then *Trade Practices Act 1974* (Cth),[17] the Commission set out its approach to the meaning of the LTIE and the section 152AB objectives set out above. In considering each of these objectives, the Commission noted that it is helpful to use a 'with or without' approach to determine whether the likely result of declaration would be to promote the relevant object (and the LTIE): that is "*the Commission considers the future without declaration and compares this to the future with declaration.*"[18]

In its Discussion Paper, the Commission states that it considers a declaration likely to promote LTIE where infrastructure facilities are enduring bottlenecks. The Commission states that an enduring bottleneck is "*an element of the network that is essential to the supply of services to end-users in downstream (retail) markets, and exhibits natural monopoly characteristics*".[19] Another way to say that a facility is an enduring bottleneck is to say it is an "essential facility". In his report, Professor Stephen King states that an "essential facility" involves two distinct characteristics:

> "*First, it must involve a natural monopoly technology [or "infrastructure" as termed by the Commission]. Second, the service provided by the essential facility input must be "essential" or a non-substitutable input into further production…*
>
> *A natural monopoly technology exists for a good or service if at all relevant levels of output it is more efficient (in terms of lower production costs) to have the output supplied by a single producer than by more than one producer…*
>
> *The existence of a natural monopoly technology, by itself, however, does not mean that there is an essential [or bottleneck] facility. If there are substitute products that can be used as alternatives to the relevant service, or if there is downstream competition between alternative products, some of which do not require the relevant service as an input, then the service is not produced by a 'bottleneck' facility.*"[20]

2.3.2. The "Essentiality" tests are a pre-condition to regulation

Telstra considers that it is contrary to the LTIE to declare a service where a relevant facility does not involve natural monopoly technology or does not pass both of the above essentiality tests. The King Report concludes that "*access regulation is only required where a relevant facility involves natural monopoly technology and the service passes both the essentiality tests. If not, then there are no structural impediments to competition through a 'bottleneck' that need correcting.*"[21] This is because:

> "*if a facility does not involve natural monopoly technology then competitive provision of the relevant good or service is both feasible and economically desirable…*
>
> *if the good or service produced by a facility does not satisfy both 'essentiality' tests, then the owner of the essential facility is constrained from exercising monopoly power or engaging in anti-competitive conduct due to either direct competition from substitute*

---

[17] Commission, *Telecommunications services – Declaration provisions – a guide to the declaration provisions of Part XIC of the Trade Practices Act,* July 1999 (**1999 Guidelines**).
[18] 1999 Guidelines, p 36.
[19] Discussion Paper, pp. 11-12.
[20] King Report, Appendix 3, pp 5-6.
[21] King Report, Appendix 3, p 7. See also the Discussion Paper, p 12.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 17/60

products or indirect competition because substitutes exist to products that use its input."[22]

2.3.3. The promotion of competition, efficiency and investment

If a service shows characteristics of an enduring bottleneck, then it is necessary to consider whether the declaration of that service would promote the three objectives set out above. For example, if downstream competition and investment is currently working through well understood contractual arrangements and/or alternative regulatory regimes, then the declaration would not promote those objectives.

2.4. Market definition

Telstra agrees with the view of the Commission set out in the Discussion Paper that, for the purposes of the Declaration Inquiry, it is generally sufficient to broadly identify the scope of the relevant markets likely to be affected by a decision to declare a service.

For the purposes of the Declaration Inquiry, Telstra does not have any difficulty with the Commission using the same broad market definitions that it adopted in the 2009 fixed services review (subject to consideration of any new evidence that may come to light in the course of the Declaration Inquiry). In the 2009 fixed services review, the Commission based its assessment on the national markets for:

- the retail and wholesale provision of fixed voice services;

- the retail and wholesale provision of fixed broadband services; and

- the retail and wholesale provision of bundled fixed voice and fixed broadband services.[23]

However, any assessment of competition in the above markets and determination as to whether services should be declared should take account of the clear differences between:

- legacy access, resale and interconnection voice and broadband wholesale services; and

- next generation NBN/IMS-based services supplied within those markets.[24]

These distinctions are important in assessing the level of wholesale competition in relation to particular services and, critically, for considering the threshold question of whether there is any enduring bottleneck in the provision of the relevant service that necessitates the application of access regulation.[25]

Telstra considers that the critical issue is not the precise boundary of the relevant market definition, but rather the accurate identification of any enduring bottlenecks having regard to any natural monopoly characteristics and the essentiality of access to services provided by means of that bottleneck technology.

---

[22] King Report, Appendix 3, p 7.

[23] These market definitions represent a practical position for the purposes of the Declaration Inquiry. As the Commission is aware, there is increasing substitution between fixed line and mobile voice and broadband services such that they may be viewed as being in the same market for the purpose of other assessments.

[24] A possible third category is HFC-based voice and broadband services. However, as the Commission has previously rejected HFC-based services as a close substitute for copper services, the number services provided using the HFC networks is relatively small (particularly voice services), and the main HFC networks now have a limited life as platforms for telecommunications services, it is not necessary, for present practical purposes, to undertake any detailed assessment in relation to HFC-based voice and broadband services.

[25] This practical and technological distinction between copper-based and NBN/IMS-based services does not mean that they are not close substitutes for end-users. To the contrary, evidence strongly suggests that both voice and broadband services on these platforms are close substitutes for the bulk of end users including PSTN voice and carrier grade VoIP services.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 18/60

2.5. State of competition

In summary, infrastructure-based investment has continued in CBD and metropolitan areas since 2009, resulting in strengthening of competitive conditions in the markets for fixed line voice and broadband services within metropolitan ESAs, but more particularly, CBD ESAs of Sydney, Melbourne, Brisbane, Adelaide and Perth (**CBD ESAs**) – which are highly competitive due to the unique demographics of CBD areas, and the prevalence of alternative fibre-based (and wireless) fixed access networks in these areas.

Telstra's full analysis of the state of competition in the relevant markets is set out in detail in Appendix 2. The key findings from that analysis are summarised below.

Infrastructure-based investment continues

Infrastructure-based investment – particularly within CBD and metropolitan ESAs – has continued since 2009. Existing and new access seekers have continued to install DSLAMs (and increase existing DSLAM capacity), deepening and expanding the DSLAM footprint as shown by the following:

- the number of ESAs in which access seekers have installed competitive DSLAM infrastructure has continued to grow, with **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** of **[c-i-c begins]** **[c-i-c]** **[c-i-c begins]** ESAs having at least one competitive DSLAM-based access seeker present as at June 2013.This includes **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** of Band 1 and **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** of Band 2 ESAs (this is up from **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** as at June 2009);

- increasing DSLAM-based competition, with access seekers continuing to follow prior entrants into ESAs. Since June 2009, the number of ESAs with at least **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** DSLAM-based competitors increased by **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** (from **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** in June 2009 to **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** in June 2013);

- the increase in DSLAM-based infrastructure investment and competition is also reflected in the significant growth in the number of interconnect cable pairs that have been installed by access seekers within Telstra exchanges, with over **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** additional interconnect pairs have been installed since June 2009; and

- the commencement of the deployment of the NBN has not reduced the competitive constraint provided by DSLAM-based investment in the PSTN-based market. It is evident that DSLAM entry is continuing, with infrastructure-based competition intensifying as access seekers expand and deepen their competitive infrastructure presence.

Competition has intensified in the market for fixed line voice and broadband services

Infrastructure investment (in particular, DSLAM-based investment) has led to continued strengthening of competitive outcomes in the supply of fixed line voice and broadband services. These competitive outcomes can be illustrated by:

- the remarkable growth in ULLS since 2009, with the number of ULLS SIOs almost doubling to **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** SIOs as at June 2013;

- significant changes in market shares with the net movement of Telstra retail services, resale access services (WLR and WDSL) and unbundled services (ULLS and LSS) between June 2009 and June 2013 resulting in lower market shares for Telstra for fixed line basic access and DSL services:

  o Telstra's retail basic access SIOs have declined by **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** per cent since 2009 – a total of **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** SIOs; and

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 19/60

- o Telstra's resale access service SIOs have declined since 2009 with WLR SIOs declining by approximately **[c-i-c begins]** [c-i-c] **[c-i-c ends]** SIOs and WDSL SIOs declining by approximately **[c-i-c begins]** [c-i-c] **[c-i-c ends]** SIOs;

- an ongoing trend of lower average real prices for telecommunications services and, of late, the continuing fall in the price of mobile services relative to PSTN services; and

- the strong presence of alternatives to traditional PSTN voice services, including bundled voice and broadband services, broadband only services offering VoIP voice service and mobile services, has led to the increasing abandonment of traditional fixed line services with a corresponding increase in the number of mobile-only households in Australia over the past decade. This has been reflected in a decline in voice only SIOs on the PSTN, with this decline occurring at a far greater rate than the SIO decline for PSTN-based services as a whole.

CBD areas are particularly competitive

CBD areas are particularly competitive due to the greater presence of DSLAM-based infrastructure in CBD ESAs, the prevalence of alternative fibre-based (and wireless) fixed access networks in these areas and the distinctiveness of the demographics of CBD areas. The high competitiveness of CBD ESAs is illustrated by CBD infrastructure presence and market share information for retail basic access services and broadband services:

- CBD ESAs are characterised by a greater presence of DSLAM based infrastructure with an average of **[c-i-c begins]** [c-i-c] **[c-i-c ends]** DSLAM competitors;

- there is a significantly higher number of installed interconnect pairs in CBD ESAs than there are active SIOs within CBD ESAs (equivalent to over **[c-i-c begins]** [c-i-c] **[c-i-c ends]** per cent of the currently active CAN lines within CBD ESAs);

- compared to its national share, Telstra has a significantly lower retail market share for basic access services in CBD ESAs (**[c-i-c begins]** [c-i-c] **[c-i-c ends]** percentage points lower) and for Telstra's broadband services in CBD ESAs (**[c-i-c begins]** [c-i-c] **[c-i-c ends]** percentage points lower); and

- there is less variation in the level of competition in CBD ESAs than in metropolitan ESAs (lower standard deviations in Telstra's retail market share for basic access services and DSL services).

Further information on the competitiveness of CBD areas is set out in section 4.2.2 and Appendix 2.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 20/60

3   Consideration of regulation of wholesale services over the NBN

3.1. Introduction

Direct access to the NBN is provided by the regulated NBN Co access service. In the Discussion Paper, the Commission asks whether additional access regulation is required, specifically:

> *"Will potential access seekers face significant barriers to entry in supplying services over the NBN? If so, would declaring resale services provided using NBN infrastructure promote the LTIE? Please give reasons, referring to the implications for competition, any-to-any connectivity (where relevant) and the efficient use of and investment in infrastructure."*[26]

The NBN introduces fundamental differences in the network architecture, market structure and the means by which services (including voice) are provided. These differences mean that the approaches necessary to promote the LTIE are different with respect to the two networks.

In Telstra's view, there is no evidence to suggest that the Commission needs to declare a second access service to address bottleneck issues with respect to NBN-connected end-users. This view is based on two key considerations. First, the NBN itself (in contrast to the PSTN) has been designed to maximise contestability and competition for all access seekers through the NBN Co access service. Second, despite the relatively early stages of the NBN rollout, all indications are that the market for NBN-based services is developing in a highly competitive manner, both at the retail and wholesale level. In particular:

- The design of the NBN provides for significant efficiencies in access compared to the PSTN. Access seekers will more readily be able to achieve a broad geographic footprint via NBN Co's access service available at the 121 PoIs, in comparison to the direct access services provided over the PSTN (i.e. ULLS and LSS). As a result, the relative importance of indirect access services provided over the NBN (such as aggregation services) will be reduced compared to the importance of these services in the context of the PSTN;

- Further, to the extent that service providers choose to rely on indirect access services, a number of providers have already established effective commercial aggregation offerings that are supporting the entry and expansion of smaller service providers into the NBN market; and

- Importantly, the NBN breaks the nexus between network access and the Telstra voice service that is inherent in the PSTN (aside from the ULLS). As the NBN is an IP network, there is a clear separation between the underlying access and transport layer and the services layer over which voice (and other services) can be provided. This means that the importance of access to the voice service (WLR/LCS) in order to acquire access to the network – as is the case in the PSTN – does not apply in the context of the NBN or IP networks more broadly. In IP networks, the supply of voice is a contestable service that can be provided by any service provider that has acquired direct or indirect access to the network.

These matters are addressed in further detail below.

---

[26] Discussion Paper, p 31.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 21/60

3.2. Differences in the technology, architecture and market structure between the PSTN and the NBN necessitate different regulatory approaches

The current suite of declared fixed line access services were introduced over time to address access to the enduring bottleneck associated with the PSTN. ULLS, LSS, WLR/LCS and PSTN OA (pre-select) each address access to the bottleneck in Telstra's PSTN CAN.

Accordingly, the network architecture and means by which services are provided over the PSTN have shaped the decisions of the Commission in declaring these services.

NBN network architecture

The NBN comprises a fibre, wireless or satellite-based access network which connects end-user premises to one of a number of NBN Co PoIs. At the NBN PoI, service providers (including Telstra) establish a connection to their own core network infrastructure enabling them to provide services to end-users connected to the NBN served from that PoI. An example of this is illustrated in Figure 3 below, which shows Telstra's core network connecting to the NBN at two NBN Co POIs in order to serve end-users connected to the NBN fibre access networks.[27]

Figure 3 Telstra's core network connecting to the NBN at two NBN Co POIs
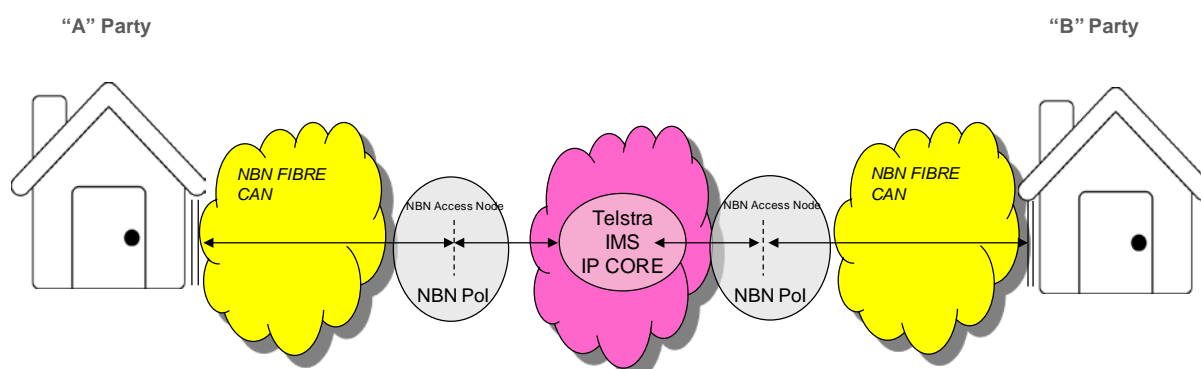
The key technical change that the NBN will introduce, aside from changes in the media used in the access network and the manner in which service providers connect to the network, will be the predominant use of IP technology to carry data (whether it be voice calls, internet services or other information) through the network. Further, IP networks are general-purpose networks, over which any conceivable type of data packet can be transmitted – including, but by no means limited to, voice services. In contrast the PSTN is a specialist voice network which uses Time Division Multiplexing (**TDM**) protocols designed to ensure the end-to-end carriage of voice calls. These differences are described in greater detail in the Fixed Networks Statement in Appendix 5.

Given the fundamental differences between the NBN (and IP networks more generally) and the PSTN, it is important to assess the appropriate regulatory response to address access to the NBN's enduring bottleneck.

As explained by Dr Ross Paterson in his speech at the 11th Annual Telecommunications and ICT Summit on 29 June 2010:

> "The transition to NGN involves a shift from a world of many separate and purpose built networks to one where multiple services can be delivered over a single unified network"

---

[27] Fixed Networks Statement, Appendix 5, at [57].

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 22/60

> *"It involves a shift from vertically integrated networks and services (ie, the owner of the network provides the services delivered by the network) to a network of horizontal layers where transport and applications are separated."*[28]

A "like-for-like" approach to regulation of access to the PSTN and NBN would be misplaced, would not the meet the needs of access seekers, would result in over-regulation of the NBN and would not be in the LTIE.

This is supported by the economic theory underpinning regulation of essential facilities. In this regard, the government, in the Explanatory Memorandum for the *National Broadband Network Companies Bill 2010* and *Telecommunications Legislation Amendment (National Broadband Network Measures— Access Arrangements) Bill 2010* (**Explanatory Memorandum**) noted that *"[r]egulation would be focused on key bottleneck services, allowing NBN Co to develop innovative services in response to customers' needs."*[29] Wholesale providers of indirect access services over the NBN should also be able to develop innovative services in response to customers' needs without the threat of over-regulation. As Professor King states in his report, value-added wholesale services provided over the NBN are not essential services and should not be regulated:

> *"It is reasonable to conclude that the NBN is an essential facility. In contrast, value-added wholesale services provided by WSPs over the NBN are not essential services. They do not involve natural monopoly technology. They are not an essential input for RSPS to compete in the provision of retail-level telecommunications services.*
>
> *…there is no economic basis for such regulation over either the long term or as a transitional measure...*
>
> *Overall, regulation of value-added wholesale services provided over the NBN would not be in the long-term interests of end users."*[30]

3.2.1. The design of the NBN promotes effective competition via the NBN Co Access Service

The NBN represents a fundamental change to the provision of fixed line telecommunication services in Australia.

First, the deployment of the NBN will result in the replacement of the Telstra-owned copper CAN with a structurally separated fibre-based access network.

The government has sought to address the perceived concerns arising out Telstra's vertical integration by mandating that NBN Co will be a wholesale only network provider. The government's ambition to simplify and focus telecommunications access regulation was described in the Explanatory Memorandum in the following terms:

> *"On 7 April 2009, in announcing the NBN initiative, the Government indicated that NBN Co would be wholesale-only, and operate on an open and equivalent access basis, subject to clear oversight by the Commission. As such it would provide an open platform for the development of robust retail level competition. Amongst other things, this approach responds to longstanding concerns about barriers to competition in the Australian telecommunications market flowing from Telstra's control of the access network and its vertical integration…"*[31]

This is further recognised by the Commission in its previous final access determinations for fixed line

---

[28] Dr Ross Paterson, "NZ telecommunications in the transforming environment", 11th Annual Telecommunications and ICT Summit, 29 June 2010.
[29] Explanatory Memorandum, p 35.
[30] King Report, Appendix 3, Executive Summary.
[31] Explanatory Memorandum, p 9.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 23/60

services, in which it stated that:

> "*The NBN presents a significant structural change away from the previous vertically integrated industry structure, which should promote competition in downstream markets.*"[32]

Second, the NBN has been designed – at the outset – to maximise competition on a national basis through the direct access service offered by NBN Co. Service providers making use of the NBN Co direct access service are able to reach all end-users served through the network by connecting to only 121 PoIs. The NBN Co access service is a layer 2 Ethernet bitstream service to the PoI, at which point the service provider is required to transport traffic to their core network.

In comparison to the PSTN (which involves over 5,000 individual exchanges nationally), service providers can economically achieve national presence over the NBN through the use of the NBN Co access service. In other words, while ULLS and LSS have technical and economic barriers that limit their effectiveness outside of CBD and metropolitan areas, service providers making use of NBN Co's direct access service are able to reach all end-users served through the network.

Although the deployment of the NBN is still in a relatively early stage, the market evidence to date shows that access seekers have found it economically efficient to connect directly to the NBN PoIs. For example:

- as of 9 August 2013, NBN Co has commissioned and activated 68 PoIs.[33] Those 68 active PoIs include five interim/temporary PoIs in Melbourne, Sydney, Brisbane, Perth and Adelaide. These interim PoIs currently serve a large number of fibre and wireless-connected NBN customers that will eventually be served from permanent PoIs. The use of interim/temporary PoIs early in the rollout phase has facilitated smaller RSPs entering the market for NBN services at a very low scale of the addressable market; and

- six of the active PoIs currently have more than 20 RSPs present, 14 have between 10 and 19 RSPs present, and a further 5 have between 5 and 9 RSPs present, a number of active PoIs have only one or no RSPs present but in almost all cases, these PoIs do not yet have addressable end-users.

A number of active PoIs do not yet have end-users connected to them who are able to receive a service (i.e. there are not yet fibre serving areas (FSAMs) in a ready for service (RFS) state). In order to assess the relative level of competition for end-users served from different NBN PoIs, it is important to take into account the number of RFS FSAMs and wireless access modules (WSAMs) currently available to RSPs.

---

[32] Commission, *Inquiry into varying the final access determinations for the WLR, LCS and PSTN OA – where these services are supplied over the NBN - Discussion paper*, April 2012, p 17.
[33] It should be noted that the presence of an active PoI does not necessarily indicate the presence of any end-users who are able to be provided with an NBN service within the Connectivity Serving Areas (**CSA**) served by a given PoI.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 24/60

Table 4: Percentage of Ready for Service Brownfield FSAMs served by Retail Service Providers[34]

Number of RSPs present at serving PoI	% RFS Brownfield FSAMs
20 or more	33%
15 to 19	33%
10 to 14	28%
5 to 9	4%
4 or less	1%

Source: www.mynbn.info, accessed 9 August 2013. See further Appendix 2.

The table above shows that:

- 94 per cent of brownfield fibre sites that are currently RFS (i.e. end-users at premises within those sites may have the opportunity to order NBN-based services) are served from PoIs at which there are at least 10 different RSPs at the PoI (i.e. end-users could order a service from at least 10 different providers); and

- 99 per cent of brownfield FSAMs that are RFS are served from PoIs at which there at least five different RSPs present.

3.2.2. The market for indirect access services will be smaller, but also more competitive on the NBN than for the PSTN

The fundamentally different access design of the NBN compared to the PSTN means that to the extent that indirect access services need to be supplied over the NBN, the market for these services will be more competitive (albeit smaller) than for the PSTN.

At the wholesale level, NBN Co's website lists 11 providers of wholesale services (including aggregation services, backhaul/transmission services and layer 3 (end-to-end) voice and internet services) as at 9 August 2013. Table 5 below draws on publicly available information from some wholesale service provider websites and sets out the key services offered by these providers over the NBN.

Table 5: Wholesale services provided over the NBN

	Backhaul / Aggregation	Layer 3 voice services	Layer 3 internet services
AAPT	✓	✓	✓
Amcom			✓
Clear Networks			✓
Eftel	✓	✓	✓
Iseek	✓		
Nextgen Networks	✓	✓	✓
Optus	✓	✓	✓
PIPE Networks	✓		
Platform Networks	✓		✓

---

[34] Note: the table only shows the breakdown for brownfield fibre RFS sites. Many PoIs also serve greenfield fibre service areas. Greenfield fibre areas have been excluded as these areas as the ready for service status of greenfield areas is less clear than for brownfield areas.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 25/60

	Backhaul / Aggregation	Layer 3 voice services	Layer 3 internet services
Symbio	✓	✓	
Telstra Wholesale	✓	✓	✓

Source: Wholesale service provider websites and NBN Co

The Backhaul / Aggregation column in Table 5 above covers 3 different types of NBN PoI access. These are:

- Simple backhaul – includes backhaul provided to RSPs who acquire services directly from NBN Co at one of the 121 NBN POIs);

- Unbundled aggregation – backhaul may also be used as an unbundled aggregation service acquired by intermediate RSPs who do not wish to establish a physical point of presence in each of the NBN POIs but who acquire backhaul to a more aggregated point and contract directly with NBN Co for the wholesale access service. This form of unbundled aggregation using backhaul is available from Telstra Wholesale and other providers of NBN backhaul; and

- Bundled aggregation services – a service provider aggregates end-user traffic from a number of PoIs and transports it to a smaller number of more centralised PoIs and bundles this with the NBN wholesale access service for handover to its wholesale customer.

Columns 2 and 3 in Table 5 above describe Layer 3 voice and broadband resale services. These services combine both an aggregation element, as well as the supply of a voice and/or broadband service that the wholesale customers are able to "resell" to its end-users. See further section 7.2 of Appendix 2.

The above data shows that although available market evidence points to the fact that a significant number of service providers are availing themselves of direct access to the NBN via the NBN Co PoIs, there is evidence of an emerging and highly competitive market in the supply of indirect access services, with at least a dozen providers of aggregation and other wholesale services already participating in the market. This is in contrast to the PSTN, where outside of CBD and metropolitan areas, there is little competition in the provision of indirect access services. This difference can be largely attributed to the following fundamental differences between the PSTN and the NBN:

- On the PSTN, for a service provider other than Telstra to provide a wholesale, indirect access service (i.e. a service that would compete with Telstra's WLR/LCS and WDSL services), the service provider must first access ULLS (or LSS) and establish the related infrastructure over which their wholesale (and retail) service offerings are provided; and

- In contrast, because many providers (not just Telstra) will be able to achieve a national reach via the NBN Co direct access services, they will also be able to compete nationally in the provision of wholesale services.

The rapid emergence of a diverse and competitive market for aggregation and other wholesale services over the NBN negates the need for further regulatory intervention. In relation to this issue, Professor King states that:

> *"In this sense there is no analogue to the "stepping stones" or "ladder of investment" theory that the Commission drew on when considering the declaration of wholesale line rental and local carriage services on the CAN. A "new" RSP can access relevant services from a variety of sources, including the NBN. The RSP can use these NBN services, or*

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 26/60

3.2.3. The NBN breaks the nexus between network access and Telstra's voice service that is inherent on the PSTN

On the PSTN, an access seeker must use the ULLS to connect at the MDF of an exchange in order to bypass Telstra's voice switching infrastructure. This is because the access service (WLR) is inherently integrated with Telstra's voice service. Access seekers that interconnect with Telstra and acquire PSTN OA (pre-select) are able to bypass parts of the Telstra voice service (e.g. long distance calls), but they are fundamentally tied to the underlying Telstra voice service.

The link between the voice service and the underlying access service is a technical feature of the PSTN, with no physical separation between the switching of traffic through the network and the provision of the voice service. Both of these activities are carried out within the PSTN Switch infrastructure as demonstrated by Figure 4 below.

Figure 4: PSTN Switch infrastructure
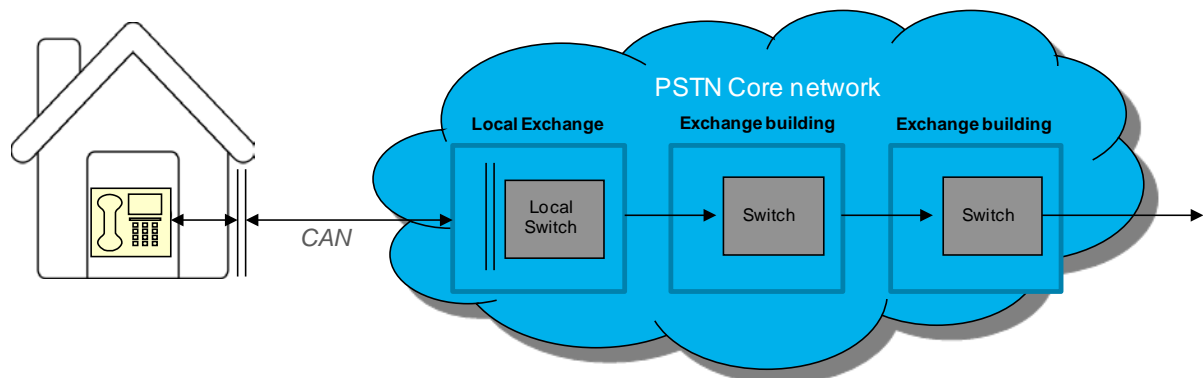
In contrast, in IP networks (including the NBN and the IP core networks that Telstra and other RSPs will use to supply NBN-based services) the transport of data packets is carried out through infrastructure (the so called "transport layer") that is separate to the infrastructure used to enable services to end-users. This is demonstrated by Figure 5 below.

---

[36] King Report, Appendix 3, p 16.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 27/60

Figure 5: NBN/IP network infrastructure
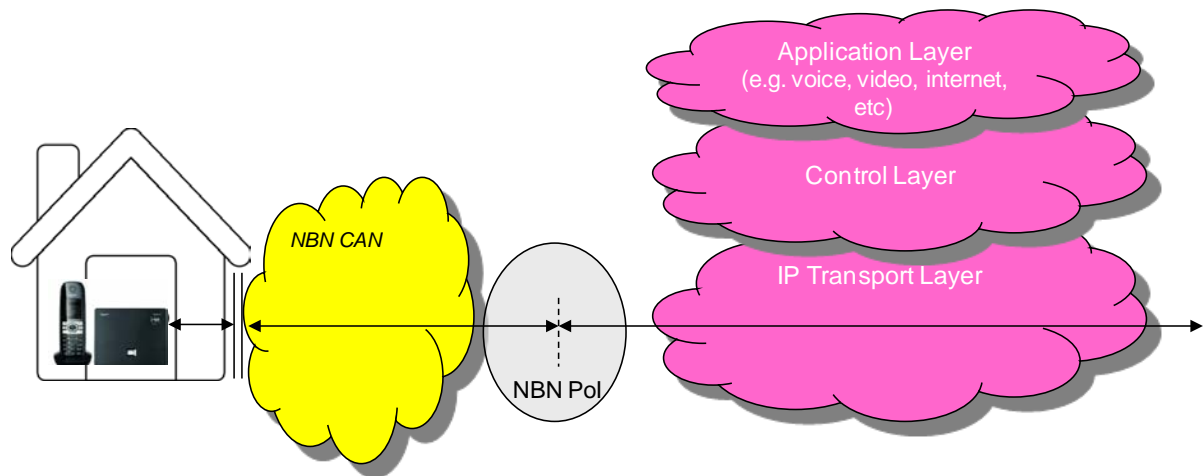
Accordingly, even if the Commission were to reach the view that a NBN indirect access service needed to be declared, the declared service should address the need for aggregation of traffic at the transport layer to a more centralised number of points. There is no additional requirement to declare a wholesale voice service provided over the NBN. It would be inappropriate and not in the LTIE to extend the declaration of the WLR/LCS service to apply to the NBN.

3.3. Risks of unnecessary declaration

As set out above, Telstra does not consider that there is any case for the Commission declaring access to an additional wholesale aggregation or wholesale voice services over the NBN. Not only would such intervention be unwarranted, it is likely to be to the detriment of the LTIE. For example, Professor Martin Cave notes the risk and potential costs that unnecessary and poorly targeted access regulation can have on the development of competitive service offerings and effective competition:

> *"Requiring any provider to supply a regulated product risks distorting the market place and stifling innovation, as the regulator typically defines the attributes of the regulated product in a fashion which may pre-empt rivals' offerings and curtails or eliminates the market discovery process from which customers benefit. I consider that in this case forbearance from regulation is in the long term interests of end users."*[36]

As noted by Professor Stephen King, negative effects can also arise from the impact that the threat of regulation is likely to have on the incentives of firms in the market to invest in the development of wholesale and retail services:

> *"... the threat of future regulation of value-added wholesale services on the NBN will retard the development of those services by:*
>
> a. *Truncating the return on risky investments in developing wholesale services; and*
>
> b. *Distorting the relative returns to service providers from being a first mover in developing services and being a follower in the service market."*[37]

Stephen King also considers the potential harm that can arise from the Commission maintaining an "option" to proactively regulate terms and conditions with respect to NBN-based wholesale services. The

---

[36] Cave Report, Appendix 4, Executive Summary, p 1.
[37] King Report, Appendix 3, pp 25-26.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 28/60

negative effect of the threat of regulation in an emerging market (such as NBN-based wholesale services) is likely to be significant and may have the perverse outcome of driving the market outcomes that the Commission is hoping to avoid:

> *"The threat of regulation will depress the investment in developing NBN-based wholesale services. The risk of future regulation will make service providers reluctant to invest in these services and this will impede the development of competition in these services. Put simply, the regulatory 'threat' imposed by the ACCC if competition does not emerge may, indeed, ensure that effective competition does not occur. It would be economically inefficient and clearly not in the long-term interest of end users if the threat of regulation prevented the development of effective competition."* [38]

---

[38] King Report, Appendix 3, p 26.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 29/60

4   LCS and WLR

4.1. Introduction

Telstra's long-standing position is that regulated resale services and other 'lower-rung' access services should only be declared where direct access services (notably the ULLS) are not able to provide effective competition in the supply of for fixed line voice (and other) services.

In 2006, during the Commission's inquiry into the declaration of WLR and re-declaration of LCS, Telstra stressed that WLR/LCS and other resale services could not be considered essential facility bottleneck services to warrant mandatory regulated access in many areas – particularly metropolitan and CBD areas – due to the variety of alternative regulated services and competitive infrastructure which were (and are) capable of providing substitute service offerings. These include DSLAM-based infrastructure through the use of the ULLS and LSS.

These arguments are as applicable today as they were in 2006. Any re-declaration of LCS and WLR should be limited to areas where there is an essential bottleneck facility to be regulated. To do otherwise is contrary to the LTIE.

This requires careful consideration of infrastructure-based competition and other substitutes that provide effective competition in particular geographic regions.

Telstra considers that, at a minimum, any regulation of WLR and LCS should continue to exclude the CBD ESAs of Sydney, Melbourne, Brisbane, Adelaide and Perth (**CBD ESAs**) (which have not been declared since 2002).[39] The consideration of the geographic scope of regulation is further considered in section 4.2 below.

In the context of the NBN, Telstra maintains that services should only be declared where there is an essential bottleneck facility. For the reasons set out in section 3 above, an essential bottleneck facility exists only in respect of the PSTN. Accordingly, the declaration of resale services should be limited to those services provided over the PSTN.

4.2. Supply should not be regulated in CBD ESAs

4.2.1. Introduction

As set out in section 2.5, CBD ESAs exhibit highly competitive outcomes in the relevant markets for fixed line services. For example Telstra's retail market share for basic access services is **[c-i-c begins]** [c-i-c] **[c-i-c ends]** percentage points lower in CBD ESAs compared to the national average. Similarly, Telstra's retail market share for broadband services is**[c-i-c begins]** [c-i-c] **[c-i-c ends]** percentage points lower (**[c-i-c begins]** [c-i-c] **[c-i-c ends]** per cent as compared to **[c-i-c begins]** [c-i-c] **[c-i-c ends]** per cent) in CBD ESAs compared to the national average. The level of competition throughout CBD ESAs is also less varied than for metropolitan ESAs. The standard deviation in Telstra's retail market share across the 16 Band 1 ESAs is **[c-i-c begins]** [c-i-c] **[c-i-c ends]** per cent for the share of basic access services and **[c-i-c begins]** [c-i-c] **[c-i-c ends]** per cent for the share of DSL services. In comparison, the standard deviation in Telstra's retail market share across Band 2 ESAs is **[c-i-c begins]** [c-i-c] **[c-i-c ends]** per cent for the share basic access services and **[c-i-c begins]** [c-i-c] **[c-i-c ends]** per cent for the share of DSL services.

---

[39] Telstra reserves its previous arguments in respect of the highly competitive outcomes observed more broadly in metropolitan ESAs which have been fuelled by continued ULLS-based competition. However, for the purposes of the response to the Discussion Paper Telstra focuses on the existing carve-outs of CBD ESAs in the service descriptions where, in Telstra's view, the competitive conditions have long been recognised as distinct from other geographic areas and where the deployment of multiple types of infrastructure-based competition has continued to broaden and deepen through new investment and new entry. For further information, please refer to Telstra's submissions supporting its LCS and WLR, and PSTN OA metropolitan exemption applications in 2007 and 2011.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 30/60

The competitive outcomes are a result of effective infrastructure-based competition – which has been facilitated by the unique demographics of CBD ESAs.

Infrastructure-based competition differs from, and is superior to, resale-based competition. It is much more beneficial to economic efficiency, creating important dynamic efficiencies as service providers compete to lower their costs (so that they can lower their prices) and invest to provide new services and greater differentiation in their existing services. The Commission has, on several occasions, expressed the view that infrastructure-based competition (where feasible and efficient) provides the basis for the winding back of resale-based competition. It set out its views in its 2006 *Position Paper on the Review of Fixed Network Services*:

> "*The key point... is that to the extent that alternative build is viable and is acting to constrain the behaviour of an incumbent operator, the need for intrusive access or retail regulation is reduced. Similarly, to the extent that quasi facilities-based forms of entry (through ULLS) are occurring in a significant way, the need for resale forms of regulation is correspondingly lower.*"[40]

These outcomes are clearly evident in CBD ESAs. The infrastructure-based competition that is evident in the CBD ESAs allows a great degree of innovation and product differentiation much more so than the mere re-badging of Telstra's retail services which is promoted by the declaration of the LCS and WLR. The Commission has long recognised that there is effective competition in for the supply of fixed line services (specifically in relation to WLR/LCS) in CBD ESAs. In July 2002, the Commission granted geographic exemptions in relation to the supply of LCS in the CBD ESAs. As noted in its Final Decision, the Commission considered:

> "*there is sufficient alternative infrastructure (such as fibre loops) and declared services (...[including] ULLS) for originating local calls in CBD areas either being used or can readily [sic] be used by alternative carriers and carriage service providers. The presence of such alternative infrastructure and services is believed to be adequate to serve as substitutes to the Local Carriage Service and act as a constraint on the Local Carriage Service Price that Telstra could charge...*"[41]

In 2006, the carve-out was applied to the WLR when it was declared (with CBD ESAs not being subject to the declaration). In its *Local Services Review 2006 – Final Decision*, the Commission (based on the 2002 decision) determined that the relevant markets for LCS and WLR should be seen as national markets but excluding the CBD ESAs.[42]

Telstra considers that regulation governing access to the LCS and WLR should continue to exclude the CBD ESAs. Within the CBD ESAs, the LCS and WLR services are clearly not an enduring bottleneck to the supply of fixed voice services and, accordingly, declaration of those services in CBD ESAs would be contrary to the LTIE.

The following sections provide further information on the level of competitive infrastructure investment in CBD ESAs – which is driving effectively competitive outcomes. Information is also provided on the unique demographic qualities of CBD ESAs that are supporting the observed level of competitive investment and competitive outcomes.

---

[40] Commission, *A Strategic Review of the regulation of Fixed Network Services – Position Paper,* June 2006, p 14.

[41] Commission, *Future scope of the Local Carriage Service*, Final Decision, July 2002, p 64.

[42] Commission, *Local Services Review 2006 – Final Decision*, July 2006, p 3. In its 2009 decision on *Fixed Services Review Declaration Inquiry for the ULLS, LSS, PSTN OA, PSTN TA, LCS and WLR - Final Decision,* July 2009, pp. 134-5, the service descriptions for LCS and WLR did not include services where the supply of the local carriage service originated from an exchange located within CBD areas of Sydney, Melbourne, Brisbane, Adelaide or Perth.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES DECLARATION INQUIRY

PAGE 31/60

4.2.2. There is extensive competitive infrastructure in CBD ESAs

In each of the CBD ESAs, there has already been significant investment in alternative infrastructure enabling the provision of voice and other fixed line services. This includes DSLAMs and related infrastructure that make use of the ULLS in order to access the PSTN access network (bypassing the need for access seekers to acquire WLR/LCS or other Telstra-supplied access services), as well as extensive alternative fibre-based access networks that bypass the PSTN altogether in serving end-users.

Investment in DSLAM-based infrastructure

DSLAM-based infrastructure[43] is a key enabler of competitive alternatives to Telstra-supplied PSTN voice and Telstra-supplied DSL services at both the retail and wholesale level. DSLAM-based infrastructure can provide both voice and broadband services in competition with Telstra's own services. Aside from the technical capabilities of DSLAMs, their importance as a competitive constraint arises from the relatively low cost at which they can be deployed. The economics of DSLAM-based infrastructure are such that there are no material barriers to entry and expansion of competition in the CBD ESAs.

There are currently between **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** and **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** DSLAM-based access seekers within each of the CBD ESAs. On average, there are **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** DSLAM-based competitors in CBD ESAs, compared to an average of **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** DSLAM-based competitors in the 466 Band 2 ESAs, in which there is at least one DSLAM-based competitor. The three largest DSLAM-based competitors to Telstra (Optus, iiNet and TPG) are all present in all 16 CBD ESAs.

The concentration of investment in DSLAM-based infrastructure within CBD ESAs can best be articulated by examining the capacity access seekers have installed within Telstra's exchanges. Access seekers have installed more interconnect pairs in CBD ESAs than there are active SIOs within CBD ESAs and access seekers currently have **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** spare capacity on this installed infrastructure.

Alternative fixed line and wireless networks

In addition to the significant presence of DSLAM-based infrastructure, CBD ESAs are notable for the presence of multiple alternative fibre-based (and wireless) fixed access networks that operate in these areas. This has previously been acknowledged by the Commission.[44]

There is extensive evidence of the extent of competitive fibre-based access networks with CBD ESAs. For example:

- Telstra's analysis (based on publicly available fibre network information provided by carriers including AAPT, Pipe/TPG, Amcom, Optus and others) indicates there are at least three alternative fibre networks within each CBD (Band 1) ESA, with seven alternative network providers in at least two CBD ESAs;

- earlier estimates provided by market research firm Market Clarity suggest that there are around 20 companies operating 55 fibre networks and 22 companies operating 37 wireless

---

[43] Throughout this submission, the term "DSLAM-based" refers to infrastructure and services that utilise Telstra's ULLS or LSS access products to install exchange-based equipment (for example, DSLAMs) capable of offering voice or high speed broadband services (or both) to end users. For example, references to "DSLAM-based" competitors are references to competitors using either the ULLS or the LSS, in conjunction with DSLAMs, to provide services to end users.

[44] Commission, *Telstra's PSTN Originating Access exemption applications – CBD and Metropolitan Areas – Final Decision and Class Exemption*, October 2008, p 12.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 32/60

networks in CBD ESAs;[45]

- Pipe Networks/TPG has connected a total of more than 1,500 buildings and over 100 data centres to its fibre infrastructure throughout Australia (principally within CBD ESAs);[46]

- new entrant FirstPath has connected more than 100 buildings in the Sydney CBD (and surrounding suburbs) to its fibre access network, with plans to connect up to 1,500 buildings directly by December 2013;[47] and

- fibre network provider Vocus has reported a 178 per cent increase in its fibre network since December 2011 and a utilisation rate of 5.6 per cent.[48] Amcom also reports additional fibre network investment of $11.3 million for the financial year 2013.[49]

Even more so than for DSLAM-based infrastructure, competitive fibre networks facilitate end-to-end infrastructure based competition across the complete range of fixed line telecommunication services and provide the maximum opportunity for competition through price, service offering and differentiation.

4.2.3. CBD ESAs exhibit unique demographic characteristics

The high level of DSLAM-based infrastructure present in CBD ESAs (which significantly exceeds even the high levels observed in metropolitan Band 2 ESAs) and the unique presence of multiple alternative, fibre-based access networks across CBD ESAs are the key drivers of the competitive outcomes that obviate the need for the declaration of WLR and LCS services in these ESAs.

This intensive investment in competitive infrastructure is driven by the unique demographic properties of CBD ESAs. When compared to other areas – including metropolitan areas – CBDs exhibit very different characteristics – including in relation to the size of the addressable market in each ESA, the presence of business premises (as compared to residential premises), and the average number of active lines provided to each premises – all of which contribute to making CBS ESAs far more attractive to potential infrastructure investment and hence, infrastructure-based competition.

Table 6 below set out key demographic and tele-differences between CBDs and other areas.

[c-i-c begins] [c-i-c]

[c-i-c ends]

As shown in Table 6:

- CBD ESAs contain a significantly larger addressable market than other ESAs. On average CBD ESAs are approximately **[c-i-c begins]** [c-i-c] **[c-i-c ends]** in terms of active PSTN (including ULLS) SIOs than Band 2 ESAs (around **[c-i-c begins]** [c-i-c] **[c-i-c ends]** on average for Band 1 as compared to around **[c-i-c begins]** [c-i-c] **[c-i-c ends]** for Band 2). The number of active PSTN SIOs in CBD ESAs ranges from **[c-i-c begins]** [c-i-c] **[c-i-c ends]** in Charlotte (QLD) to approximately **[c-i-c begins]** [c-i-c] **[c-i-c ends]** in Exhibition (VIC). It should be noted that the significant presence of alternative, fibre-based networks within CBD ESAs means that these data understate the true size of the addressable market – particularly for those service providers operating their own network infrastructure;

---

[45] Market Clarity, *Telecommunications Access Networks in Australian Capital Cities,* prepared for Mallesons Stephen Jaques, 26 September 2007.

[46] *http://www.tpg.com.au/about/pdfs/TPMHY13Presentation_v13.pdf,* p 11.

[47] FirstPath, "Products", 2013, http://www.firstpath.com.au/index.php/products (accessed 5 August 2013).

[48] Vocus, *Half Yearly Results Presentation*, 28 February 2013, available at http://www.asx.com.au/asxpdf/20130228/pdf/42dbnqhd23864z.pdf (accessed 1 August 2013).

[49] Amcom, *Half Yearly Results*, 2013, available at http://www.asx.com.au/asxpdf/20130429/pdf/42fjkny2g1pqkh.pdf (accessed 1 August 2013).

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 33/60

- The greater addressable market available to potential DSLAM-based competitors in CBD ESAs is also supported by the very low percentage of end user services provided by non-MDF infrastructure (i.e. RIMS, CMUX units) compared to the PSTN as a whole. On average, **[c-i-c begins]** [c-i-c] **[c-i-c ends]** of SIOs within CBD ESAs are served from non-MDF infrastructure; and

- The relative attractiveness of serving end users with CBD ESAs is supported by the average number of active PSTN lines per serviced premises. Despite CBD ESAs having, on average, **[c-i-c begins]** [c-i-c] **[c-i-c ends].** PSTN SIOs than for the average Band 2 ESA, the number of premises to which services are connected is actually lower in Band 1 than for Band 2. This results in the average number of SIOs per premises in CBD ESAs being **[c-i-c begins]** [c-i-c] **[c-i-c ends]**, compared to the **[c-i-c begins]** [c-i-c] **[c-i-c ends]** in metropolitan areas. This is likely due to the higher concentration of business premises in CBD ESAs. The proportion of the premises classified as business premises in CBDs is **[c-i-c begins]** [c-i-c] **[c-i-c ends]**, compared to the **[c-i-c begins]** [c-i-c] **[c-i-c ends]**, in metropolitan areas.

The larger scale and addressable market size, more significant presence of business premises and greater likelihood that a given end-user will require multiple basic access lines in CBD ESAs, all help to explain the intensity of DSLAM-based investment and competition in these areas, hence the more competitive market outcomes observed with respect to PSTN services.

4.2.4. It is clearly in the LTIE for CBD ESAs to remain exempt from regulation

As stated above, facilities-based competition has a number of advantages over regulated access as it results in greater price competition, service innovation and competition over a broader range of markets. Ensuring that CBD ESAs are not subject to unnecessary regulation will ensure a continuation and promotion of facilities-based competition given the extensive rollout of DSLAM infrastructure and the existence of effective competition.

Continuing to exclude CBD ESAs from the standard access obligations (**SAOs**) will promote competition and the efficient investment in (and use of) infrastructure in the CBD ESAs, which will in turn promote the LTIE.

4.3. The WLR and LCS service descriptions should apply only to PSTN services

The Explanatory Memorandum for the *Trade Practices Amendment (Telecommunications) Bill 1996* notes that:

> *"in making a declaration of an eligible service, the ACCC will have a high level of flexibility to describe the service, whether it be in functional or any other terms. This will enable, where appropriate, the ACCC to target the access obligations (which are triggered by a declaration) to specific areas of bottleneck market power by describing the service in some detail, or to more broadly describe a service which is generally important (such as services necessary for any-to-any connectivity)".*[50]

In Telstra's view, the existing WLR and LCS service descriptions were "targeted" appropriately when these services were first declared (in 1999 and 2005 respectively) to reflect an enduring bottleneck on the PSTN.[51] At that time, the wide scale deployment of next generation IMS-based networks (which would eventually facilitate the supply of IP-based voice services that are substitutable for PSTN voice

---

[50] Explanatory Memorandum, p 45.

[51] As the Commission noted in its decision to declare WLR in its Final Decision Local Services Review 2005, July 2005, at p 47: *"The line rental service is an essential component in provision of retail telephony services such as local, long distance and international calls. These, and other, basic telephony services cannot be provided without the line rental service, which allows for access to the public switched telephone network"* .

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 34/60

services was many years in the future.[52] As such, although arguably the current definitions for WLR and LCS were already drafted to be PSTN-specific (i.e. they refer specifically to calls provided over a "public switched telephone network"), the reality of NBN-based substitutes in the market place introduces a degree of ambiguity to the existing service descriptions.

Telstra considers that, irrespective of the final view that the Commission reaches on the appropriate scope of the service descriptions, amendments should be made to reflect the deployment of NGN-based networks in order to provide better clarity and certainty for industry going forward.

If the Commission agrees with Telstra's view that NBN-based voice services should *not* be declared (for the reasons set out in section 3 above), then Telstra suggests that the current WLR and LCS definitions should be clarified by amending the definition of "public switched telephone network" to better reflect that this is a circuit switched dedicated voice network and not an IP packet routed network.

Further, the determination should specifically define the CBD ESAs that are exempt (rather than point to Telstra's operations manual (**OPM**)) and the reference to telephone number should be changed to specifically refer to "geographic" number.

Telstra's proposed mark ups to the existing service descriptions are set out in Appendix 7.

---

[52] As above, p7: "*The ACCC also found that there is considerable uncertainty about the development of competitive infrastructure platforms and services, such as wireless access, fixed-to-mobile substitution, VoIP and the ULLS, that could act as supply substitutes to the LCS and WLR services*".

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 35/60

5   PSTN OA and PSTN TA

5.1. Introduction

The PSTN OA and PSTN TA declarations provide:

- **Indirect access services**: PSTN pre-select and override OA provides a long distance access service to access seekers that enables an end-user to select an alternative supplier for long distance services to the fixed network operator the end user is directly connected to; and

- **Interconnection services**: this refers to the process by which call traffic is transferred between network operators. It allows network operators to exchange call traffic between their fixed networks via:

   - PSTN TA: this enables an access seeker to terminate calls to end-users connected to the access provider's fixed network; and

   - PSTN Special Services Access OA: this allows a retail business customer (a "B party") to receive 13/1300/1800 calls from end users directly connected to fixed networks other than the network of the B Party's service provider.

The PSTN OA and TA Statement at Appendix 6 provides detailed examples and diagrams illustrating the PSTN (pre-select and override) OA; the PSTN (Special Access Services) OA service and the PSTN TA services. [53]

Currently, **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]**carriers acquire PSTN OA and PSTN TA services from Telstra. However, **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** as set out in Figure 6 below. This is driven by increasing fixed to mobile substitution as well as increased ULLS-based competition.

Figure 6 [c-i-c begins]

[c-i-c] **[c-i-c ends]**

5.2. Indirect access services

PSTN (Pre-select and Override) OA is a wholesale service that typically enables access seekers to supply the full fixed line voice calling bundle to end users directly connected to Telstra's PSTN network (provided by means of WLR, LCS, PSTN OA). In the absence of a complete bypass of the Telstra voice network via ULLS, PSTN (pre-select and override) OA typically enables Telstra resale customers to provide the bundle of local calls (via WLR/LCS) and long distance, fixed to mobile and international calling services to end users.

Telstra considers that the PSTN pre-select / override OA obligation should only apply in respect of the PSTN. There are three fundamental reasons why pre-select and override OA is not applicable over NGN networks, namely:

- even over legacy PSTN networks the original rationale for a separate standalone long distance access alternative has substantially diminished, with **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]**. Although the WLR/LCS and PSTN pre-select override OA bundle remains meaningful for wholesale customers providing the full voice bundle to end-users directly connected to Telstra's PSTN network, long distance voice services are rarely acquired as a part of the voice standalone services;

---

[53] Appendix 6, see pp. 3-4.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 36/60

- NGN networks (such as the NBN) are fundamentally different in structure to a PSTN network. In particular the separation of control functions among bearer capabilities, call/session and application with IMS/IP based networks which decouples service provision from transport, means the bundle of voice services is highly replicable over NGN networks (i.e. there is no inherent calling service bottleneck on NGN networks as there is with the PSTN); and

- additional costs to the IMS platform that would be needed to support pre-select and override type functionality over NGN-based networks are large and also unnecessary given that the primary bottleneck is readily addressed through layer 2 wholesale access (i.e. the NBN fibre access service), which facilitates the provision of applications and services by RSPs to end-users connected to the NBN.

In relation to this last point, Telstra notes that its IMS-based voice services (including UNI-D and UNI-V services provided over NBN[54]) do not at present support pre-select or override functionality. Telstra estimates that the initial upfront costs of incorporating pre-selection functionality for IMS would be substantial, comprising:

- amendments to the charging systems to enable it to differentiate between local calls and long distance calls – estimated at around **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]**for the initial investment; and

- pre-selection capability – estimated at around **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]**.

In addition, the annual operating costs of this functionality would likely be in the order of **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]** to **[c-i-c begins]** **[c-i-c]** **[c-i-c ends]**of the incremental capital costs. Telstra believes that costs for other carriers would be at a similar level.

Following a consultation by the Department of Broadband, Communications and the Digital Economy (**DBCDE**), on 19 June 2012, the *Telecommunications (Consumer Protection and Service Standards) (Characteristics for Standard Telephone Service) Regulation 2012* came into effect (**Pre-selection Exemption Regulation**). Under the Pre-selection Exemption Regulation, amongst other changes, an initial three year exemption removing the pre-selection obligation for services supplied over the NBN was introduced.

The Explanatory Memorandum to the Pre-selection Exemption Regulation stated that the purpose of this exemption:

> *"...is to remove the requirement to supply STSs with pre-selection when using the NBN or a comparable wholesale-only network. This exemption is limited to three years, providing time for the government to review pre-selection arrangements in an NBN environment. As noted above, there are costs involved in providing pre-selection and it is not clear that those costs are warranted given the low and declining use of pre-selection and the ready ability to move between providers on an open access wholesale-only fibre network (e.g. like the NBN)."[55]*

Pre-selection (and override) is a legislative requirement[56] which allows an end-user to elect to route certain call types to a particular carrier other than their basic access carrier. In the PSTN environment, pre-selection enables end-users to nominate an alternative carrier for their long distance (as well as fixed to mobile, subscriber trunk dialling and international direct dialling) calls than the carrier that provides their basic access service. Whether or not the basic access service is a Telstra retail service or a WLR service, Telstra is the carrier of basic access services.

---

[54] As described more fully in the Fixed Networks Statement, Appendix 5 at pp 14-17.
[55] Explanatory Statement, Select Legislative Instrument 2012 No. 99, p 20.
[56] Refer to section 349 of the Telco Act.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 37/60

The Pre-selection Exemption Regulation operates to remove the obligation for the supply of pre-selection to end-users where the basic access service is supplied over NBN Co infrastructure. This applies agnostically to all end-users directly connected to the basic access service provider's network – irrespective of whether they are retail end-users or resale end-users.

In Telstra's view, the Pre-selection Exemption Regulation means that Telstra and other RSPs do not have an obligation to supply a pre-selection functionality for access services provided over the NBN.

Therefore, pre-select/override traffic ceases to be operative in the supply of PSTN OA services,[57] to the extent of NBN services. Accordingly, in Telstra's view:

- the cost of pre-selection (and override) functionality provided over new NGN fibre infrastructure, such as NBN, is high;

- the extremely low and declining use of stand-alone pre-selection (and override) capability (whether at wholesale or retail) means that this legacy network regulation, originally used to foster the development of long distance competition in the late 1990s is of declining relevance in the legacy PSTN world and not relevant in an NGN world;

- there are no identifiable benefits in requiring significant new investment by the industry in implementing this functionality as part of carrier IMS platforms;

- in the typical case of bundled voice services (local and long distance) under NBN, the full bundle of voice services will be provided by the end user's RSP of choice. The RSP who acquires NBN Co's wholesale access service to facilitate the supply of the bundle of voice calling services to end users connected to NBN Co's network;

- at the wholesale level, NBN Co's regulated access service effectively replaces the two key legacy wholesale options currently used by RSPs to supply the bundle of voice services to end users (i.e. either through ULLS; or by acquiring the WLR/LCS and PSTN (pre-select and override) OA bundle; and

- during the progressive deployment of the NBN, ULLS and/or WLR/LCS and PSTN (pre-select and override) OA remain relevant to those end users who are connected to the PSTN. Existing pre-selection functionality built into the PSTN switching network will continue to support wholesale customers in this regard.

Accordingly, for similar reasons to those set out in section 4 above in relation to WLR and LCS services, there is no requirement for bundled long distance voice access to be regulated over NBN (or other next generation networks).

As with the WLR and LCS service descriptions, Telstra's has proposed some minor drafting changes in Appendix 7 to the PSTN OA service description to clarify that pre-selection and override obligations apply in relation to services supplied over the PSTN network.

5.3. Interconnection Services

There are two types of PSTN interconnection services, namely, PSTN Special Services Access OA and PSTN TA.

PSTN Special Services Access OA is used by access seekers to provide 13/1300 and 1800 retail services. These services involve calls from directly connected end-users on the Telstra network to inbound numbers, for example, 13/1300 (local rate numbers) and 1800 (toll free) numbers. This call case

---

[57] As PSTN (pre-select and override) is the wholesale access service which is the vehicle for giving effect to the end-users pre-selection or override choice.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 38/60

has quite different characteristics to the "pre-select/override" call case. These characteristics are set out in detail in the PSTN OA and TA Statement in Appendix 6.

PSTN TA provides the ability for end-users of any domestic voice network to reach a B-Party connected to the PSTN (and vice versa).

5.3.1. Current interconnection arrangements operate effectively

Interconnection is the process by which call traffic is transferred between network operators. It is achieved through industry agreement on network technology, technical standards and interworking arrangements. Today, interconnection arrangements are governed by a set of standards which cover technical, billing, number portability and other elements critical for the successful passage of voice calls. These standards operate successfully due to the co-operative development of those standards by interconnected carriers, based on the following international standards:

- capacity is provided by 2.048 Mbit/s switchports which operate in accordance with ITU recommendations G.703, G.704 and G.732; and

- interconnect signalling is based on the ITU-T CCS7 standard.

As set out in the PSTN OA and TA Statement at Appendix 6:

> "*These interworking arrangements have evolved over time through substantial carrier co-operation and have proven resilient to the changing ways in which voice is treated inside different carrier's networks (including IP, and TDM).*"[58]

Importantly, of the 13 carriers that currently interconnect with Telstra, a number of them operate entirely IP-based voice networks. These carriers have invested in low cost media converters which take the IP traffic and convert it to TDM (and vice versa) in order to continue to interconnect with the remaining carriers.

Existing PSTN interconnection (PSTN Special Services OA and PSTN TA), as currently defined, continues to work well in facilitating any to any connectivity regardless of the underlying technology providing the basic access functionality,[59] as was recognised in the Explanatory Memorandum to the *Trade Practices Amendment (Telecommunications) Bill 1996*:

> "*the need for any-to-any connectivity between end-users of services which have similar, but not identical, functional characteristics, such as end-uses of a fixed voice telephony service and end-users of a mobile voice telephony service, or end-users of internet services which may have differing characteristics.*"[60]

The TDM/CCS7 interconnect standards are used today by PSTN operators, carrier-grade IP voice providers, specialist business voice providers and over-the-top VoIP service providers to provide any-to-any functionality to their customers. For the foreseeable future, these arrangements will continue to be the primary means by which voice traffic is interconnected between fixed line service providers, including those providing access services over the NBN.

The rollout of the NBN changes the access component of voice services from a traditional circuit switched PSTN basis to an IP stream basis. At this time there are no defined technical standards for IP-based interconnection and so the ultimate shape of the technical and commercial arrangements remains uncertain.

---

[58] See PSTN OA and TA Statement in Appendix 6, p 10.
[59] The existing PSTN Special Services Access OA and PSTN TA service descriptions are defined in a technology neutral way to apply to "PSTN" and "PSTN equivalent" basic access functionality which would include carrier grade IP telephony services.
[60] Explanatory Memorandum to the *Trade Practices Amendment (Telecommunications) Bill 1996*, pp. 43-44.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 39/60

However, as is the case with IP-based voice networks today, the existing TDM/CCS7 based interconnection standards are appropriate for NBN-based voice services through the use of media conversion devices. These standards will continue to apply given that the alternative of moving to an IP-based interconnection model is complex and costly, the standards for inter-working remain nascent, and the industry business case remains uncertain.

In the longer term, over the next 3-5 years, when industry led interworking standards have emerged and large scale demand occurs, these calls are likely to move to a platform where they can be more interconnected to IP. At this time, it would be premature to seek to change the existing TDM based interconnection methodology which remains robust, reliable and currently operates effectively to facilitate the interconnection of both IP and TDM-based voice traffic between carriers.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 40/60

6   Network access services

Telstra agrees with the Commission that the ULLS and LSS should continue to be declared for the next regulatory period.

In the event that the ULLS and LSS continue to be declared, the existing service descriptions remain appropriate. Telstra considers that there is no reason to change service descriptions that have been in place for a number of years, are well understood by industry and work well.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 41/60

7   Facilities access

7.1. Summary

Telstra considers that there is no need for any further regulation of facilities access services, either by way of a specific declaration of those services, or through setting terms and conditions for access via the FADs for the fixed line services.

7.2. Existing regulation of facilities access

Facilities access is already regulated via a number of mechanisms, including:

- the specific regimes for facilities access set out in Parts 3 and 5 of Schedule 1 of the Telco Act. Part 3 of the Telco Act sets out the access regime for supplementary facilities, which would include access to exchange buildings (whether owned by Telstra or another carrier). Part 5 sets out the access regime for telecommunications transmission towers and underground facilities, which would include access to ducts;

- the Code. Established by the Commission in 1999 and currently undergoing review, the Code governs how access to certain telecommunications facilities owned by telecommunications carriers (including mobile towers and underground ducts) is provided to other carriers seeking to install their equipment on or in those facilities;

- Telstra's SSU, which places equivalence requirements on Telstra with respect to the reservations of exchange capacity and queue management at exchanges; and

- since 2008, Telstra has been required to comply with the 'Access to Telstra Exchange Facilities RKR',[61] which was developed in response to complaints about delays associated with Telstra's queuing system. The purpose of the RKR was, and continues to be, to monitor queuing and capping at Telstra's exchanges and provide transparency and oversight about these processes.

Given the existing legislative requirements to provide access to facilities and the other regulatory instruments that provide oversight of the processes required to provide that access, Telstra considers that any further regulation of facilities access is unnecessary. There is also a significant risk that any such further regulation would be:

- inconsistent with the current legislation/regulatory instruments, hence leading to inefficiency in having to comply with different regulatory regimes; and/or

- duplicative, in which case there appears to be little benefit in imposing any additional regulation.

Under both scenarios, it is likely that the cost of the additional regulation would outweigh the benefits of that regulation. This is clearly not in the LTIE.

7.3. Operation of existing facilities access regimes

Telstra considers that the existing facilities access regimes work well. In the past decade there have been only **[c-i-c begins]** [c-i-c] **[c-i-c ends]** duct access disputes, **[c-i-c begins]** [c-i-c] **[c-i-c ends]**. As regards TEBA, in the past decade, there have been **[c-i-c begins]** [c-i-c] **[c-i-c ends]** access disputes,[62] **[c-i-c begins]** [c-i-c] **[c-i-c ends]**.

---

[61] Accessible at http://transition.accc.gov.au/content/index.phtml/itemId/827798.
[62] Thirteen of those disputes, involving seven customers, related to the internal interconnect cable.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 42/60

This low level of disputation – and the corresponding high level of commercial agreement – is evidence of the fact that the existing facilities access regimes are working well and that where there is a dispute about terms of access, there are well understood dispute resolution procedures.

Telstra acknowledges that in the past, wholesale customers did experience problems accessing some of Telstra's exchange buildings. However, that issue was resolved in practice in July 2008.[63] The latest Access to Telstra Exchange Facilities RKR (for June 2013) shows that there continues to be no capped exchanges.[64] Telstra notes that the Commission did not include terms and conditions relating to facilities access in the current FADs for the fixed line service. Telstra considers that, if anything, industry concerns regarding facilities access should have abated since the 2011 FADs because of the continued monitoring of exchange building access and the equivalence requirements of the SSU.

7.4. Facilities access and the LTIE

Taking all of the above into account, Telstra believes that if the Commission was to declare facilities access or otherwise set the terms and conditions of facilities access, such action would not be in the LTIE. In particular it would:

- neither promote competition nor encourage efficient investment in new infrastructure compared to the existing long standing regulatory framework for access to facilities which is well established, understood by industry and overall is working effectively;

- generate uncertainty because any potential inquiry (which would need to occur as a pre-requisite to any formal declaration) is likely to discourage investment and competitive conduct by current and potential service providers who wish to access each other's facilities at a time when regulatory certainty is especially important given the planned transition to the NBN and a new industry structure; and

- ignore the long term competitive dynamics that are being encouraged by the deployment of the NBN including in relation to the provision of competitive access to facilities (including from NBN Co).

Telstra notes that the Commission appears to believe that it could further regulate facilities access through either separate declaration of facilities access or through the inclusion of appropriate terms and conditions in the FADs for the fixed line services. Importantly, Telstra believes that the latter option is *only* open to the Commission if it can establish a sufficiently direct nexus between the facilities access in question and the relevant declared service. In other words, it would be wrong for the Commission to simply assume that it can regulate all facilities access through the FADs for the fixed line services.

In Telstra's view, it could not have been Parliament's intent to have two different access regimes (the Telco Act regime and the regime in Part XIC of the CCA) applying to access to the same facilities. Parliament has established a specific regime to regulate access to facilities, which is set out in Parts 3 and 5 of Schedule 1 of the Telco Act. Accordingly, Telstra considers that it is beyond the scope of the Commission's powers to declare access to facilities under Part XIC of the CCA and that the appropriate legislative regime for regulating facilities access is set out in Schedule 1 of the Telco Act. In support of this view, Telstra notes that the separate operation and distinct application of parallel regulatory regimes has been endorsed by the recent changes to the Telco Act and the CCA. More particularly, despite making considerable changes to both Acts, Parliament has not sought to combine the two regimes.

Telstra notes that the object of Part XIC of the CCA is to promote the LTIE of *carriage services or services provided by means of carriage services.*[65] Telstra believes that the proper scope Part XIC

---

[63] *Australian Competition and Consumer Commission v Telstra Corporation Limited* [2010] FCA 790 (28 July 2010).
[64] See
http://transition.accc.gov.au/content/item.phtml?itemId=1123390&nodeId=9e20677792adebbd02406b2786c2283d&fn=Telstra%20Exchange%20Access%20RKR%20summary%20-%202013-06.pdf.
[65] Refer to section 152AB of the CCA.

should therefore be targeted carefully to focus on the regulation of the supply of *carriage services* to address bottleneck issues with respect to particular infrastructure. Facilities access is *not* itself a carriage service (i.e. a service involving the carriage of communications). In some circumstances, if it can be established that access to a facility is a direct and necessary input into the supply of a regulated carriage service (e.g. ULLS) then such a facility could come within the scope of Part XIC.[66] However, in these circumstances it is not necessary or appropriate, in Telstra's view, to separately declare such access. This makes sense given the underlying carriage service that is declared represents the means of addressing the relevant enduring bottleneck problem and related services must have a relevant nexus to such carriage services. In the event that the access to a facility does not relate to the supply of a declared service, then the appropriate regulatory regime that relates to the sharing of facilities has been separately established under the Telco Act. There is no need, nor would it be appropriate, to separately declare access under Part XIC.

---

[66] Refer to the Commission's *ULLS and LSS Access Disputes, Chime Communications Pty Ltd/Telstra, Reasons for Final Determinations*, November 2012.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 44/60

8 Length of declaration

Telstra considers that the Commission should continue to declare the existing legacy fixed services (ULLS, LSS, PSTN OA and TA, and WLR/LCS over PSTN (except in CBD ESAs)) and that this would be in the LTIE. A duration period of 3-5 years would be appropriate.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 45/60

Appendix 1: Responses to questions in the Discussion Paper

Commission question	Telstra response
1. Do you consider the Commission's proposed assessment framework is appropriate for assessing whether declaring certain fixed line services would promote the LTIE? That is, will the proposed assessment framework assist the Commission in assessing whether declaring a service will promote competition in markets for telecommunications services, achieve any-to-any connectivity and encourage efficient use and investment in infrastructure by which the service is supplied?	In its Discussion Paper, the Commission states that it considers a declaration is likely to promote the LTIE where infrastructure facilities are enduring bottlenecks. Telstra considers that it is appropriate for the Commission to consider whether infrastructure facilities are enduring bottlenecks when assessing whether declaring certain fixed line services would promote the LTIE. In undertaking this assessment, Telstra considers that a facility is an enduring bottleneck if it is an "essential facility", where an essential facility involves two distinct characteristics: • it must involve a natural monopoly technology; and • the service provided by the essential facility input must be essential or a non-substitutable input into further production. This is because the existence of a natural monopoly technology, by itself, does not mean that there is an essential (bottleneck) facility. If there are substitute products that can be used as alternatives to the relevant service, or if there is downstream competition between alternative products, some of which do not require the relevant service as an input, then the service is not produced by a 'bottleneck' facility. Please refer to section 2 and Appendices 3 and 4 for

Commission question	Telstra response
	further information.
2. How should the Commission define the markets relevant to network access services for the purposes of this review?	For the purposes of the Declaration Inquiry, Telstra does not have any difficulty with the Commission using the same broad market definitions that it adopted in the 2009 fixed services review (subject to consideration of any new evidence that may come to light) – namely: • the retail and wholesale provision of fixed voice services; • the retail and wholesale provision of fixed broadband services; and • the retail and wholesale provision of bundled fixed voice and fixed broadband services. However, any assessment of competition in the above markets and determination as to whether services should be declared should take account of the clear differences between: • legacy access, resale and interconnection voice and broadband wholesale services; and • next generation NBN/IMS-based services supplied within those markets. Please refer to section 2 for further information.
3. Does Telstra's copper network continue to be a bottleneck for providing voice services to end-users? Please consider the impacts (if any) of the NBN rollout and the existence of HFC networks and give reasons for your answer.	The primary enduring bottleneck with respect to the PSTN is the "last mile" copper access line that connects end-user premises to the network. Telstra believes that this will continue to be a bottleneck over the next regulatory period, despite the rollout of the NBN and the existence of

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 47/60

Commission question	Telstra response
	HFC networks. Please refer to section 3 for further information.
4. Does Telstra's copper network continue to be a bottleneck for providing broadband services to end-users? Please consider the impacts (if any) of the NBN rollout and the existence of HFC networks and give reasons for your answer.	Please refer to Telstra's response to question 3 above.
5. Would declaring network access services promote the long-term interests of end-users? Please give reasons, referring to the implications for competition, any-to-any connectivity (where relevant) and the efficient use of and investment in infrastructure.	Telstra considers that it is in the LTIE to continue to declare ULLS and LSS. The ULLS and LSS provide direct access to Telstra's copper CAN and regulation of those services should be the primary focus for the Commission as it promotes facilities-based competition. Please refer to section 6 for more information.
6. In the event that the ULLS and LSS continue to be declared, are the service definitions for these services still appropriate? Please give reasons.	Telstra considers that the current service descriptions for ULLS and LSS continue to be appropriate. Please refer to section 6 for more information.
7. Have developments in the industry since 2009 indicated that the Commission should consider commencing a declaration inquiry in respect of any new or different network access services? If so, please specify the services and explain why declaring them would promote the long-term interests of end-users.	Telstra does not consider that there have been any developments since 2009 which suggest that the Commission should consider commencing a declaration inquiry in respect of any new or different network access services.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 48/60

IT'S HOW
WE CONNECT

Commission question	Telstra response
8. How should the Commission define the markets relevant to resale services for the purposes of this review?	Please refer to Telstra's response to question 2 above.
9. Does Telstra's copper network represent a bottleneck for providing resale voice services to end-users? Should the Commission continue to declare resale voice services? Please give reasons referring to the state of competition in voice markets, any-to-any connectivity and the efficient use and investment in infrastructure.	Telstra considers that regulated resale services such as LCS and WLR should only be declared where an enduring bottleneck exists, i.e. where direct access services (notably the ULLS) are not available to provide effective competition in the supply of fixed line voice (and other) services. In areas, particular CBD ESAs, where significant infrastructure investment, infrastructure-based competition and competition from mobile and wireless networks exists, Telstra does not consider that there is a relevant bottleneck to be regulated. Accordingly, at a minimum, any regulation of WLR and LCS should continue to exclude the CBD ESAs of Sydney, Melbourne, Brisbane, Adelaide and Perth. Telstra reserves its previous arguments in respect of the highly competitive outcomes observed more broadly in metropolitan ESAs, which have been fuelled by continued ULLS-based competition. For further information, please refer to Telstra's submissions supporting its LCS and WLR, and PSTN OA, metropolitan exemption applications in 2007 and 2011.
10. Will potential access seekers face significant barriers to entry in supplying services over the NBN? If so, would declaring resale services provided using NBN infrastructure promote the LTIE? Please give reasons, referring to the implications for competition, any-to-any connectivity (where relevant) and the efficient use of and investment in infrastructure.	Given that the NBN has been designed at the outset to maximise competition on a national basis through the direct access service offered by NBN Co, Telstra considers that there are no significant barriers to entry in supplying services over the NBN. For this and the following reasons, Telstra considers that it would be contrary to the LTIE to regulate voice (or other resale) services provided over the NBN: • the enduring bottleneck with respect to the NBN

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES DECLARATION INQUIRY

PAGE 49/60

Commission question	Telstra response
	is already the subject of structural separation from all RSPs, and access on a non-discriminatory basis is regulated by the Commission; • the market for indirect access services is likely to be significantly smaller in the NBN context than in the PSTN context, and to the extent that indirect access services over the NBN are required, they will be provided in a highly competitive market – with multiple service providers commercially offering a range of aggregation, resale and other wholesale services; and • current fixed voice interconnection services will continue to provide an effective and efficient means of interworking between different carriers on both the PSTN and the NBN. Please refer to section 3 for further information.
11. In the event that the WLR service and the LCS continue to be declared, are the service descriptions for these services still appropriate?	In general, the service descriptions remain appropriate. However, Telstra considers that the Commission should make some minor amendments to the existing service descriptions for WLR and LCS to better clarify that the scope of those declarations apply in respect of the legacy PSTN network only. Please see section 4 and Appendix 7 for more information.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 50/60

Commission question	Telstra response
12. Have developments in the industry since 2009 indicated that the Commission should consider commencing a declaration inquiry in respect of any new or different resale services? If so, please specify the services and explain why declaring them would promote the LTIE.	Telstra does not consider that there have been any developments since 2009 which suggest that the Commission should consider commencing a declaration inquiry in respect of any new or different resale services.
13. How should the Commission define the market relevant to interconnection services for the purposes of this review?	Telstra considers that it is important to distinguish between PSTN OA used for the purpose of indirect access (Pre-Select and Override OA), and PSTN OA used for voice interconnection (Special Services Access). Considering this, the market relevant to interconnection services (which are PSTN Special Services OA and PSTN TA) is the voice services market. Players in the market include service providers utilising the PSTN, ULLS, HFC, and mobile voice networks to provide voice calling functionality to their end users. This also includes inbound voice service providers using PSTN Special Access Services OA to allow end users from any network to connect to their 13/1300/1800 services. Please refer to section 5 for further information.
14. Would extending the declarations for the PSTN OA and PSTN TA services promote the long-term interests of end-users? Please give reasons, referring to the implications for competition, any-to-any connectivity and the efficient use of and investment in infrastructure.	Telstra considers that it is in the LTIE to continue to declare PSTN OA and PSTN TA. Please refer to section 5 for more information.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 51/60

Commission question	Telstra response
15. What implications do end-users' growing use of mobile- and VoIP-based voice services, and growth in the use of the ULLS and access seekers' own equipment, have for declaration of the PSTN OTA services?	Please refer to section 5 for further information.
16. Are the service descriptions for the PSTN OA and PSTN TA services still appropriate? Should service descriptions for voice interconnection services be technology-neutral? Please give reasons for your answer.	In respect of PSTN TA and PSTN Special Services Access OA, the existing service description for each service remains effective for interconnection. Existing TDM/CCS7 based interconnection standards will continue to provide the only ubiquitous, reliable and robust basis for the interconnection of calls between fixed network operators irrespective of whether TDM or IP is used as the core network technology for the provision of PSTN or PSTN equivalent voice services by different fixed network operators. In the longer term, over the next 3-5 years, when industry led inter-working standards have emerged and large scale demand occurs these calls are likely to move to a platform where they can be interconnected as IP. Accordingly, in Telstra's view it would be premature to change the current service descriptions in respect of these interconnection services in the next regulatory period. For PSTN (pre-select and override) OA (which is an indirect access service typically bundled with WLR/LCS), Telstra considers that the Commission should make some minor amendments to the existing service description for PSTN OA to better clarify that pre-selection and override obligations apply only in relation to services supplied over the legacy PSTN. Please refer to section 5 for further information.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 52/60

Commission question	Telstra response
17. What does the expected change in the fixed line network—from a copper network carrying an analogue signal to a fibre network carrying VoIP—mean for the declaration of interconnection services?	Please refer to Telstra's response to question 16 above, and section 5 for further information.
18. Do developments in the industry or in interconnection arrangements since 2009 indicate that the Commission should consider commencing a declaration inquiry in respect of any new or different interconnection services?	Telstra does not consider that there have been any developments since 2009 which suggest that the Commission should consider commencing a declaration inquiry in respect of any new or different interconnection services. Please refer to Telstra's response to question 16 and section 5 for more information.
19. What facilities access services do you currently use? Please describe how you use these services and why they are needed by your business.	Not applicable.
20. Have you experienced any unreasonable difficulties in obtaining facilities access? If so, please describe the nature of the difficulties, their significance to your business, and whether they were resolved. For any difficulties that were resolved, please explain how they were resolved and how long it took to reach a solution. If they were not resolved, please describe the impact on your business.	Not applicable.
21. Should the Commission consider whether any facilities access services be declared? If so, please specify the service(s) and give reasons. In explaining your reasons, please comment on the expected impact of declaring the service(s), referring to any effects on competition, any-to-any connectivity, efficient use of infrastructure, and infrastructure investment.	Telstra considers that any additional regulation of facilities access is unwarranted and would not be in the LTIE, because facilities access is already regulated through long-established and well understood mechanisms. It would be contrary to legislative intent to declare facilities access services under Part XIC of the CCA. Please refer to section 7 for further information.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 53/60

IT'S HOW
WE CONNECT

Commission question	Telstra response
22. Would regulating facilities access services through the FADs of any declared fixed line services be more or less effective in promoting the LTIE than declaring facilities access services in their own right? Please give reasons for your view.	See Telstra's response to Question 21 above. Further regulation is not required. In addition, Telstra considers that this option is only open to the Commission if it can establish a sufficiently direct nexus between the facilities access in question and the relevant declared service. Please refer to section 7 for more information.
23. What is an appropriate duration for the declarations? Please give reasons.	Telstra considers that a duration period of 3-5 years is appropriate. Please refer to section 8 for further information.

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 54/60

Appendix 2: Market information report

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 55/60

Appendix 3: King Report

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 56/60

Appendix 4: Cave Report

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 57/60

Appendix 5: Technical Witness Statement (Fixed Networks)

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 58/60

Appendix 6: Technical Witness Statement (PTSN OA and TA)

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 59/60

Appendix 7: Mark ups to service descriptions

TELSTRA CORPORATION LIMITED (ABN 33 051 775 556)
PUBLIC SUBMISSION IN RESPONSE TO DISCUSSION PAPER IN THE FIXED SERVICES
DECLARATION INQUIRY

PAGE 60/60