

## STATEMENT OF [c-i-c commences] [c-i-c] [c-i-c ends]

On 31 May 2011 I, [c-i-c commences] [c-i-c] [c-i-c ends] of 231 Elizabeth St in Sydney in the State of New South Wales, state as follows:

### Confidentiality

- 1 The information in **Annexure A** and **Annexure B** to this statement are confidential to Telstra Corporation Limited (**Telstra**). I have prepared this statement on the basis that the information in Annexures A and B will remain confidential and that the information will only be disclosed in accordance with the terms and conditions agreed between Telstra and the recipient of the information. Annexure A sets out the confidential information which is contained in the relevant paragraphs. That confidential information has been deleted in this statement.

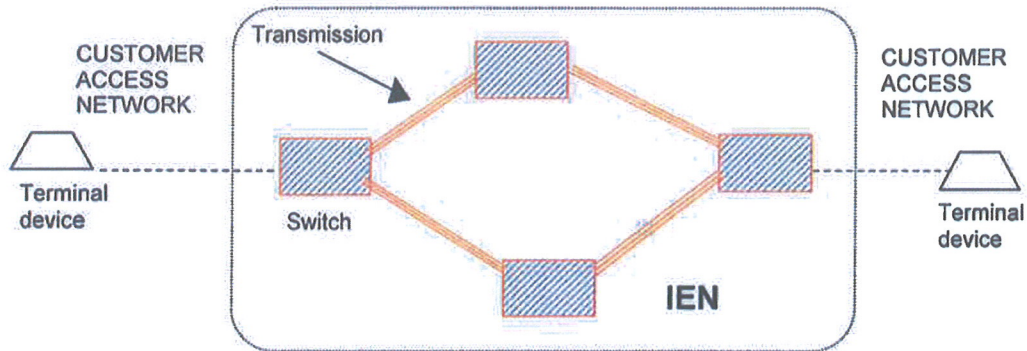
### Background

- 2 I am the Group Product Manager of the Interconnect and Access Products group within the Telstra Wholesale business unit of Telstra. I have occupied this and other similar positions within Telstra Wholesale, all of which involved a role in providing Public Switching Telephone Network (PSTN) interconnection, for the past 14 years.
- 3 In my position, I am responsible for the development and provision of interconnect and access products to wholesale customers. These products include Wholesale Line Rental (WLR) and Telstra's Public Switched Telephone Network Originating and Terminating Access (PSTN OTA). As access in the future is likely to be provided via NBN, I am involved in the development of wholesale products on that platform.

### The Public Switched Telephone Network

- 4 A PSTN consists of switches (which are generally located in exchanges) connected by transmission systems and a customer access network. The switches are generally specific to a set of services and the transmission systems are typically shared by a range of services. Telephone switches allow a call to be routed from one end-user device to another by establishing a temporary connection between the end-users. Without telephone switches, an end user would need a dedicated telephone handset and line connecting to each person with whom he or she wished to communicate.
- 5 Telstra's PSTN is a nation wide fixed line telecommunications network. The PSTN is used to provide voice telephony and data (for example, facsimiles and dial-up and broadband internet access) services.

- 6 The PSTN is made up of two parts, the Customer Access Network (CAN) and the Inter-Exchange Network (IEN). The CAN is the part which connects an end-user to a local access switch in an exchange. The IEN is the part of the PSTN which connects exchanges together. The IEN allows for calls to be established between an A-party connected to one exchange to a B-party connected to another exchange.
- 7 A diagrammatic representation of the PSTN, in its simplest form is set out below.



where:

- terminal devices:** (such as a telephone handset) provide user functionality and connection.
- switch:** transfers/transits the call into/through the IEN, making decisions about which route to take along the way.
- transmission:** transports the call between switches.

- 8 Telstra's PSTN comprises approximately 5,000 exchange service areas (ESAs). Further, Telstra has 93 PSTN gateways servicing 66 Call Collections Areas (CCA) which allow hand over of PSTN OTA traffic to PSTN OTA access seekers.

#### Use of Unconditional Local Loop Service (ULLS) to provide voice and broadband

- 9 The ULLS enables access seekers to access the CAN component of an existing PSTN network allowing them to build and deploy services such as voice and a range of digital subscriber line services (DSL) to customers.
- 10 An alternative network operator wishing to provide a voice and broadband service, using a combination of its own infrastructure and access to Telstra's CAN by acquiring the ULLS service from Telstra, would typically build out a digital subscriber line access multiplexer (DSLAM) network for the provision of voice and broadband data services. The DSLAM would usually be housed within or adjacent to a Telstra exchange building in an ESA where the operator wishes to provide services via ULLS.

- 11 A network operator wishing to carry and deliver voice services using existing circuit switched technology and signaling, would also need to build or acquire access to switching equipment, transmission infrastructure and the capacity to interconnect with other carriers' networks (including Telstra's PSTN network).
- 12 Another alternative would be to provide voice over internet protocol service (VOIP) in combination with the current generation of soft switches. For this purpose, the provider would also have to set up interconnection arrangements (including media gateway switches) in order to convert internet protocol (IP) based voice information packets to circuit switched format for the purpose of interconnecting with other carriers' networks (including Telstra's PSTN network). This will be either by direct interconnection or via a hosting arrangement with another carrier who has PSTN interconnect arrangements in place.
- 13 Currently there are around [c-i-c commences] [c-i-c] [c-i-c ends] access seekers who have installed DSLAMs in Telstra's exchanges and are supplying services to end-users using ULLS. Those access seekers have installed their DSLAMs in around [c-i-c commences] [c-i-c] [c-i-c ends] ESAs.

#### **PSTN OTA**

- 14 Network operators can also currently provide voice services using a combination of their own infrastructure and PSTN OTA.
- 15 This involves the Access Seeker connecting its switching equipment to Telstra's PSTN gateways in some or all of Telstra's 66 CCAs for the purposes of such interconnections.
- 16 I am aware that a number of the ULLS and PSTN OTA access seekers provide IP based voice services to their customers using their own soft switches. To the extent that they do not have soft switching infrastructure, they have the relevant interconnection facilities mentioned above.

#### **Connecting to NBN**

- 17 I have been asked to set out the necessary steps which access seekers who have ULLS and who have interconnection for PSTN OTA must take to be capable of acquiring access from the National Broadband Network (NBN).
- 18 In order to interconnect to the NBN network, Access Seekers will require soft switches and transmission infrastructure to connect to the NBN Points of Interconnection (POIs).

- 19 Access Seekers that have either of the infrastructures described above require only the following in order to connect to the NBN:
- (a) increased soft switch capacity if existing switches are nearing or at capacity;
  - (b) transmission from their soft switches to the NBN POIs; and
  - (c) to configure their soft switches for compatibility with the NBN's network standards to allow inter-working with the end customer devices.
- 20 NBN proposes to have 121 POIs. There are between [c-i-c commences] [c-i-c] [c-i-c ends] ULLS acquirers present in 108 ESAs in which the NBN POIs are proposed to be located. Confidential Annexure B sets out the NBN POI, the name of the ESA in which they are located and the number of ULLS competitors who have infrastructure (and hence transmission to connect that infrastructure to their network) present in the ESA.
- 21 All of the metropolitan NBN POIs are located in a metropolitan area where a PSTN POI is located. Given the availability and capacity of transmission in metropolitan areas and the fact that transmission pricing in those areas is either regulated (76 ESAs) or exempt indicating competitive alternatives are available (45 ESAs), connecting to the NBN metropolitan POIs for those access seekers who currently connect to the PSTN POIs will not be difficult or overly costly.
- 22 The majority of the regional NBN POIs are located in the same ESA as the PSTN POI is located. Again, connecting to those NBN POIs will not be difficult or overly costly.
- 23 The only regional NBN POIs where the PSTN POI is not located in the same ESA are Mayfield, Horsham, Traralgon, Tullamarine, Ashmore, South Coogee and Queanbeyan.
- 24 The distance between the NBN POI and the PSTN POI for those POIs is on average 11.4 kms with the range being between 3.3 kms and 19 kms. Given these distances, I consider that either building or acquiring transmission in those regions over those distances will not be difficult or over costly.
- 25 The only exception is Horsham. The closest PSTN POI is Ballarat, which is 200 kms away. Transmission to Horsham is declared.

**Resale service acquirers**

- 26 Given the above, a large number of access seekers already have the capability to interconnect with NBN. There is an overlap between ULLS and PSTN OTA acquirers and WLR acquirers.
- 27 Of WLR acquirers, [c-i-c commences] [c-i-c] [c-i-c ends] have the capability to connect to NBN. [c-i-c commences] [c-i-c] [c-i-c ends] have indicated that they will be establishing infrastructure in order to acquire services from NBN. These WLR acquirers hold [c-i-c commences] [c-i-c] [c-i-c ends] of WLR lines. Given this, at most there would be approximately [c-i-c commences] [c-i-c] [c-i-c ends] WLR lines which may be transitioned to resale services on the NBN.

**Resale competition**

- 28 I have been asked to comment on how many ULLS acquirers supply resale services via ULLS. I am aware that Optus supplies both voice and broadband resale services over ULLS.

**DATED:** 31 May 2011.

[c-i-c commences] [c-i-c] [c-i-c ends]