# Prepared on behalf of: Telstra Corporation Ltd

# Australian Competition & Consumer Commission Domestic mobile roaming declaration inquiry 2016

# Statement of Robert John Joice

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[CIC begins] = information not to be released without a confidentiality undertaking

[CIC begins] = information not to be released even with a confidentiality undertaking

- I, Robert John Joice, General Manager for Wireless Strategic Solutions, Wireless Network Engineering Telstra Operations at Telstra Corporation Ltd (**Telstra**) of Level 6, 231 Elizabeth Street, Sydney, say as follows:
- I am the General Manager for Wireless Strategic Solutions, Wireless Network Engineering within the Operations business unit at Telstra.
- I make this statement from my own knowledge as General Manager for Wireless Strategic Solutions, from my experience accrued as an employee of Telstra across 13 years, from 20 years in the telecommunications industry and from having consulted and made enquiries of relevant staff and the records of Telstra.
- 3 Unless otherwise defined in this statement, terms used in this statement have the same meaning as defined in the Submission which this statement supports.

#### 1 BACKGROUND

- 4 I have been employed by Telstra since 7 April 2003.
- 5 As General Manager for Wireless Strategic Solutions I am responsible for:
  - (a) engagement with Singtel Optus Pty Limited (**Optus**), Vodafone Hutchinson Australia Pty Limited (**VHA**) and NBN Co Limited (**NBN Co**) in relation to sharing of telecommunications facilities, the resolution of inter-carrier disputes in relation to site sharing issues on a site by site basis, and variations to agreements;
  - (b) negotiation of tenure agreements and rentals with major national and state based property owners including Crown land authorities;
  - (c) negotiation of reforms to statutory planning schemes with local and state government authorities;
  - (d) negotiation of regulatory reforms to the *Telecommunications Act 1997* (Cth) to enhance the timely and cost effective deployment of telecommunications facilities;
  - (e) resolution of legacy tenure negotiations; and
  - (f) oversight of planning appeals upon refusal of development applications for new telecommunications facilities.
- My career in telecommunications commenced in or about November 1996 and I have been involved in site acquisition and facilities access issues since this time. Prior to my role as General Manager for Wireless Strategic Solutions I held the following positions:
  - (a) National Manager, Site Acquisition in the Operations business unit of Telstra, 2003-2013;

- (b) Site Acquisition Manager, Hutchison Telecommunications (Australia) Limited (**Hutchison**), 2002-2003;
- (c) Regional Acquisition Manager / National Site Acquisition Manager, Vodafone Networks Pty Ltd (Vodafone Networks), 1996-2002; and
- (d) from 1985 to 2003, I worked as consultant licensed property valuer.
- 7 I hold a Valuation of Real Estate Certificate from Sydney Technical College.
- 8 My most recent curriculum vitae is attached as Annexure "RJJ-1".

#### 2 TELSTRA'S MOBILE TOWERS AND FACILITIES

9 As at November 2016, Telstra utilises more than 8,500 unique mobile network sites. These figures are not static as Telstra is constantly expanding its network.

#### 2.1 Telstra owned mobile towers and facilities

- As at November 2016, for approximately of these sites, Telstra owns the mobile structure (these structures include free-standing towers, monopoles and guyed masts) and either owns or occupies, via a lease or other arrangement, the land on which the structure is located. For the purposes of this statement, I refer to these Telstra owned facilities as 'Telstra Mobile Facilities'.
- Table 1 below provides a breakdown, on an approximate basis, of current Telstra Mobile Facilities by area, classified in accordance with the Australian Bureau of Statistics Remoteness Structure. These figures have been extracted from Telstra records. Details on the number of these facilities shared with other carriers is set out below in paragraph 31.

Table 1: Breakdown of Telstra Mobile Facilities by area (classified in accordance with the Australian Bureau of Statistics Remoteness Structure)

Area	Percentage of Telstra Mobile Facilities
Major cities	30 per cent
Inner regional	27 per cent
Outer regional	24 per cent
Remote	10 per cent
Very remote	9 per cent

#### 2.2 Alternative mobile towers and structures used by Telstra

- The remaining facilities currently used by Telstra to deploy mobile radio communications equipment are not owned by Telstra. These facilities include other structures, such as monopoles, building rooftops, power poles, light poles, traffic signage, in building coverage systems, silos, and water reservoirs. They include radio and mobile towers and structures owned by other companies.
- 13 Other owners of radio or mobile towers include:
  - (a) Axicom Pty Limited (Axicom) (previously Crown Castle Australia);
  - (b) BAI Communications Pty Limited (Broadcast Australia);
  - (c) Optus (although I understand that Optus sold some of its towers to Axicom in April 2000);
  - (d) VHA (although I understand that VHA sold some of its towers to Axicom in April 2001 and between 2003 and 2008); and
  - (e) NBN Co.
- 14 I do not have details of the precise number of towers owned by each of the above companies.

  However, Telstra co-locates on approximately 1,200 sites owned by
- When considering whether a structure is suitable as a mobile facility, amongst other considerations, Telstra requires clear line of sight to propagate the radio signal to the desired coverage area. Where a suitable elevated structure (such as a water tower) is available with sufficient height, structural capacity and aperture availability, Telstra considers whether it can utilise the structure as an alternative to building a new tower or monopole.
- In my experience, these alternative structures provide a lower capital cost alternative than Telstra building its own new structures in those areas, and can often be deployed faster than a new purpose built structure. This is because new structures often need to go through lengthy local council planning and development approval processes (including community consultation) and protracted tenure negotiations.
- I estimate, based on my experience, that approximately 40 per cent of the alternative structures Telstra currently utilises (excluding light poles and power poles) are shared with another party, which may include another mobile carrier, utility organisations, broadcasters, local councils, community radio or a government department for radio communications.

#### 3 THE FACILITIES ACCESS TOWER SHARING REGIME

#### 3.1 Legislative framework

- Tower sharing is required under the *Telecommunications Act 1997* (Cth) (the **Act**). Part 5 of Schedule 1 of the Act requires carriers who own existing telecommunications transmission towers or structures (Telstra, Optus, VHA and NBN Co) to provide other carriers with access unless any of the criteria in the Act are not met or if one of the other exceptions to the Act apply (for example, if providing access is not technically feasible).
- In accordance with this facilities access obligation, Telstra has developed processes and policies and agreed commercial arrangements to facilitate other carriers' access to their existing and proposed networks. I am aware that other carriers have done the same. This access is called 'co-locating' or 'tower sharing'.
- The Act also provides that carriers planning the provision of future carriage services, must cooperate with other carriers to share sites and eligible underground facilities. Similarly, the carriers have developed a process to enable this as well, which is set out below in section 4.2.
- The Australian Competition and Consumer Commission (ACCC) has also released A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities (the Facilities Access Code) which sets out conditions that carriers must comply with when providing access under Part 5 of the Act including provisions relating to confidentiality, queuing policies, dispute resolution and non-discriminatory access.

### 3.2 Access agreements

- The tower sharing regime has been in place since I commenced working in this area in 1996 (at which time I worked for Vodafone Networks). During my career, I have worked for both access seekers and access providers operating under the regime. Although Telstra is typically an access provider, it also seeks access to other carriers' network facilities. In addition, prior to Telstra, I was employed at Hutchinson and Vodafone Networks where I managed the staff responsible for making tower sharing applications to Telstra and other tower owners. During this period, the process for tower sharing was relatively similar, with the same kinds of issues and considerations, to what is described in section 6 in my statement below.
- 23 Since I commenced working at Telstra in 2003, members of my team have been involved in reviewing and responding to applications from other mobile carriers to install equipment on Telstra's Mobile Facilities from an operational perspective. I also work from time to time with staff from Telstra Wholesale in negotiating tower sharing arrangements with other carriers and assisting with issues that have been escalated.
- As noted above in paragraph 10, Telstra currently owns approximately

  Telstra Mobile Facilities over which it is possible for other carriers to apply to co-locate in

accordance with the Act. Arrangements between Telstra and carriers co-locating on Telstra Mobile Facilities under this regime are governed by commercially negotiated access agreements within the framework of the Act and the Facilities Access Code.

Under the Facilities Access Code, carriers who own and operate towers must develop a 'queuing policy'. The Facilities Access Code provides that the queuing policy must include the infrastructure owner's applications. In accordance with Telstra's queuing policy, Telstra may reserve space for itself on a tower where it has genuine plans for a specific future use of that tower.

Telstra's commercially negotiated access agreements with other carriers include provisions which deal with Telstra reservations. Generally these provisions provide that the customer's proposed equipment can be co-located on Telstra's towers unless, at the requested date of access, Telstra has a valid reservation for that space (as determined under the relevant access agreement).

Telstra's commercially negotiated access arrangements with other carriers also allow access seekers to reserve their own space on Telstra's towers by submitting requests for access to space on a Telstra tower. An "approval in principle" by Telstra (Level 2 of the tower sharing process), gives an access seeker a reservation of space on a Telstra tower for a period determined by the relevant access arrangement. Included in this period is the period an access seeker has to commence its construction activity once a design and construction proposal (D&CP) is approved. Once the access seeker has obtained approval of its D&CP, the access seeker has 2 years in which to commence construction activity



#### 4 TOWER SHARING ON TELSTRA'S MOBILE TOWERS

In my experience, the co-location regime described above is robust and works effectively to promote co-location opportunities between carriers. Co-location has a number of advantages for carriers including lower initial capital cost, a shorter timeframe to deliver new services and

avoiding community opposition to new telecommunications infrastructure (particularly in metro and regional areas).

- 31 As at November 2016, approximately Telstra Mobile Facilities are shared with
- Figure 1 illustrates the location of Telstra mobile sites (both owned and not owned), alongside those Telstra owned sites on which another carrier is co-located. In my view, tower sharing is less common in major cities and regional areas as most carriers have developed their own infrastructure in these areas or can utilise alternative structures.

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Figure 1: Map of carriers co-located on Telstra sites

**Legend**Other carrier co-located on Telstra Structure

#### 4.1 Historical tower sharing applications

The ongoing effectiveness of the co-location process is demonstrated by the increasing number of applications Telstra has been receiving and granting since the co-location regime was introduced. Table 2 below sets out the number of Level 3 design and construction applications (described in section 6.2 below) Telstra has received from wholesale customers over the past ten years. I note that, depending on the date the Level 3 application was received, it may have been approved in the following year. Consequently, in some years (for example 2009 and 2012) more Level 3 applications were approved than received.

Table 2: Level 3 applications received by Telstra from wholesale customers over past ten calendar years

Calendar year	Level 3 applications received by Telstra	Level 3 applications approved by Telstra
2006	134	109
2007	177	171
2008	520	506
2009	193	200
2010	216	206
2011	392	348
2012	502	543
2013	307	276
2014	378	375
2015	496	488
2016 (to 15 November)	396	393

This information shows that in addition to a general year on year increase in Level 3 applications over the past ten years, there was a significant increase in applications in both 2008 and 2012. In my view, the spike in applications in 2008 was likely a reaction to the launch of Telstra's NextG network in October 2006, as Optus and VHA were prompted to expand their 3G network to catch up with Telstra's launch. I also believe that the spike in 2012 is likely a reaction to Telstra's deployment of 4G, as Optus and VHA were seeking to facilitate the launch of their 4G networks.

#### 4.2 Maximising tower sharing opportunities

In addition to the tower sharing regime described above, which is initiated by the access seeker, Telstra, as both a tower owner and a potential tower sharing party, actively seeks to maximise tower sharing opportunities at new tower build sites (ie. greenfield sites) in accordance with the Act.

- When any carrier is planning to build a greenfield tower, details of the proposed location is uploaded to and published on the RNFSA. This allows interested parties access to information on where carriers are planning on building new sites. In addition, Telstra, Optus and VHA provide a list of these proposed new sites to the Mobile Carriers Forum (MCF). MCF is an industry forum that I attend five times a year on behalf of Telstra.
- MCF regularly collates this greenfield information and sends a complete list of proposed builds to each carrier, usually on a six monthly basis. Telstra then reviews this list with a view to determining where there may be an opportunity for co-location. If an opportunity is identified, Telstra will approach the carrier to determine whether its requirements may be met. If they are and an agreement is reached, one carrier will take primary responsibility for the build, and the other will seek to co-locate on that site in due course. Through this process, the parties will co-operate to ensure that the new facility will meet both parties requirements. Occasionally, the co-locating carrier may contribute to some of the installation costs.
- In my view, participating in this process at the MCF leads to substantial benefits for both parties in terms of reduced costs and reduced administration because only one party needs to go through the development approval process and conduct necessary community consultation prior to the installation works. This initiative by the carriers helps to address community sensitivities around multiple mobile towers in one location by reducing unnecessary duplication of infrastructure, especially in more built up areas.
- In addition to the MCF process, I understand that a requirement of Telstra's arrangements for Round 1 of the Federal Government Mobile Black Spots Program was that all new Telstra sites built under that Program were constructed on a "plus one basis" to ensure that there was capacity available for at least one additional carrier to co-locate at each site if requested.

#### 5 RELATIVE COSTS OF TOWER SHARING

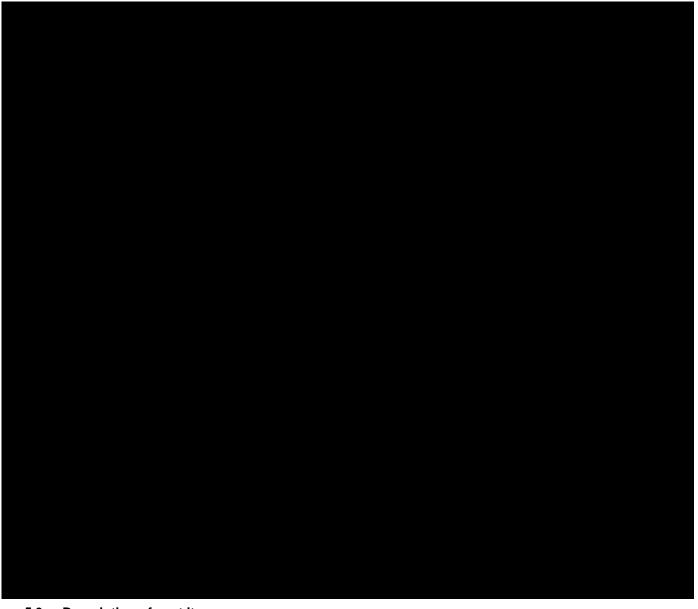
#### 5.1 Greenfield mobile sites

In my experience, the financial cost of tower sharing is generally lower than the cost of constructing a new tower, particularly in regional and rural areas. The estimated approximate cost of building a new 40 metre tower or monopole is set out in Table 3 below.



### 5.2 Co-location mobile sites

The estimated general cost of co-locating on a 40 metre existing tower or monopole is set out in Table 4 below. These estimates are reflective of the costs Telstra would face when it is co-locating on another carrier's facility. An explanation of each of these components is set out in paragraphs 42 and 43 below, including the key assumptions that have been made in respect of the cost components.



# 5.3 Description of cost items

- 42 The upfront cost components for co-location include:
  - (a) <u>Build costs</u> This amount covers service costs associated with design, planning, project management, construction, installation and commissioning in relation to components (b)-(i) below.
  - (b) <u>Site acquisition</u> The fee that must be paid to site acquisition consultants who are retained to negotiate a lease of the land required for the access seeker's equipment shelter and to undertake the necessary planning approvals and community consultation. For co-location requests, whilst planning approvals may not be required, community notification and / or consultation often is, and that process is the responsibility of the access seeker in that instance.

- (c) <u>Shelter and feeders</u> It is standard practice that each party with equipment on the facility will have its own shelter to house its on-ground equipment and feeder cables connecting the facility equipment to the shelter.
- (d) Power extension This covers the cost of a power extension that may be needed to upgrade or replace the existing transformer (or substation) in order to cope with the additional power consumption load.
- (e) <u>Transmission link</u> This cost assumes that a fibre transmission link is readily available. If this is not the case, transmission costs can vary significantly depending on point of interconnection as the longer the extension of fibre required to enable the site to connect to the access seeker's core network, the greater the cost.
- (f) <u>Backhaul</u> ("the last mile") – This is the cost of connecting the site to the access seeker's existing fibre transmission link or to the Telstra transmission capacity acquired by the access seeker, and is often referred to as the "last mile". Generally, these costs will be limited in metro areas where distances are short and fibre backhaul is available. Microwave transmission is commonly used in regional and remote areas where there is no fibre backhaul available. In my experience, carriers who are co-locating on Telstra's towers will often use microwave transmission to connect to their closest tower, where they have existing fibre backhaul already installed, rather than installing their own backhaul at every shared tower or leasing backhaul from Telstra. The costs for backhaul set out in Table 4 above do not include the cost of licenced spectrum or the ongoing cost of providing backhaul capacity. There may also be opportunities for the access seeker to acquire backhaul transmission services from Telstra Wholesale on existing or upgraded Telstra backhaul to the cell site. Depending on the location this may provide a more cost effective solution for the access seeker then establishing its own backhaul in which case costs in Table 5 could be lower.
- (g) Antenna Equipment purchased by access seeker.
- (h) <u>Base technology</u> Equipment purchased by access seeker.
- (i) <u>Batteries</u> The cost of back up batteries for the access seeker's equipment. As outages are often longer in regional and rural areas more batteries are required.
- The ongoing operating cost components for co-location towers include:
  - (a) <u>Power</u> Ongoing power costs associated with running their equipment on the tower.
  - (b) Rental The fees that the access seeker pays to the land-owner in order to access the site. The access seeker negotiates these costs directly with the land owner.

- (c) <u>Facilities access</u> This is the fee that access seekers pay to Telstra for ongoing access to the Telstra Mobile Facility. These fees are negotiated as part of the access arrangements.
- I note that the costs in Table 4 do not include the costs of structural upgrades which could be an added expense for an access seeker (see further information on this set out below in section 6.3). The range of these costs will vary depending on the type of structural upgrade required. For example, I consider it would cost approximately to undertake minor strengthening of a tower. A more extensive structural upgrade, such as replacement of a facility, could cost up to Occasionally, Telstra may share the costs of a structural upgrade with an access seeker. This decision is made on a case by case basis.

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### 6 TOWER SHARING APPLICATIONS FOR TELSTRA'S MOBILE FACILITIES

#### 6.1 Overview of the co-location process

- The step by step process followed when an access seeker makes a request to co-locate on Telstra Mobile Facilities is set out in the access agreements however I have set out a general summary of this process in section 6.2 below. It is my experience that Telstra follows substantively the same process when making a co-location application to other carriers (Optus, VHA or NBN Co). A similar process has also been adopted by non-carriers, such as Axicom and Broadcast Australia, even though they are not carriers and therefore not covered by the Act.
- Telstra's co-location process is identical across all access seekers and managed by Telstra Wholesale and Telstra Operations, including myself, where required.
- Although this step by step process is the same in the way that it applies to all access seekers, each co-location request is unique and must be assessed on a case by case basis against the particular circumstances of the relevant Telstra Mobile Facility and the equipment which the access seeker is proposing to co-locate there. The bespoke nature of this process means that the timeframes set out below for Telstra's response at various stages of the application process reflect reasonable endeavours. Although Telstra endeavours to comply with these timeframes,

in my experience, they are not always achievable for a variety of business reasons, some of which I describe below. I also note that these timeframes generally reflect Telstra's current policies and practice, however, they may differ between access seekers depending on the terms of their commercially negotiated access arrangement.

- 49 Some factors which may affect the co-location process, including timing, are:
  - (a) Complexity Based on my experience, the more complex a co-location request, the more time Telstra and the access seeker will need to progress the request. For example, if a structural upgrade is required as part of a co-location request, both Telstra and the access seeker will need additional time and business input to consider the appropriate design. If an equipment shelter is proposed to be installed on the site, property stakeholders must be consulted. If a power upgrade is needed, electrical engineer input may be required. This individual analysis is crucial to ensure that the access seeker's requirements can be met and the integrity of Telstra's network is not impacted during the co-location process.
  - (b) <u>Bulk requests</u> Occasionally, access seekers will send through bulk co-location applications rather than staggering their requests.

Given the reasonable endeavours timing turnaround on a preliminary information request is quite short (5 working days), it is difficult to meet that timeframe for bulk requests. Telstra has taken steps to attempt to address this, which include asking access seekers to periodically provide forecasts setting out their expected requirements for co-location sites. However, this request is not strictly complied with by all access seekers. Given this, Telstra produces its own forecasts based on historical data, however these are unlikely to be as accurate as those produced by the access seekers themselves.

- (c) Network requirements Ensuring the integrity of Telstra's network and safety of those working on the network is always a key priority for Telstra. I am aware of occasions when changes in network policy may have affected both Telstra and access seekers, including the timing of co-location requests. For example, in 2014, Telstra undertook a review of Telstra's electromagnetic emission controls at its radio facilities. This review recommended more stringent controls for occupational health and safety reasons. While those changes were being implemented by Telstra, co-location requests and/or current construction work being undertaken by both Telstra and access seekers on Telstra's network was delayed.
- Due to the reasons set out above, in my view, Telstra's process to address co-location requests must retain a degree of flexibility and requires ongoing co-operation between the parties. As

part of this co-operation, Telstra seeks to keep in contact with the access seeker, updating them on the progress of its application and the steps being undertaken.

#### 6.2 Step-by-step process for co-location

To assist access seekers with their participation in this process, Telstra Wholesale publishes a 'Co-location Submission Guide'. This guide sets out further detail on each of the steps below. A copy of this guide is attached as **Annexure** "RJJ-2".

#### Level 1: Preliminary information request and response

- The tower sharing request process begins when an access seeker makes a request to Telstra for preliminary information about a Telstra Mobile Facility. As part of the request, the access seeker is required to provide:
  - (a) contact details for the access seeker; and
  - (b) details of the Telstra Mobile Facility they are seeking to access, including site number and name, site address, landlord details and a description of the existing facility (if known).
- Telstra uses reasonable endeavours to undertake a preliminary study within 5 working days of a receipt of a tower sharing request and to advise the customer of the following:
  - (a) contact details for the relevant Telstra team;
  - (b) confirmation of the site details, including site number and name, site address, landlord details and a description of the existing facility;
  - (c) existing Telstra and other access seeker equipment on the site;
  - (d) queuing information of the site (including existing Telstra reservations and prior access requests from the other access seekers that have been given Level 2 or above approval);
  - (e) any special conditions; and
  - (f) any other reasonable requirements of Telstra in connection with the access requested to enable the customer to complete a request of an "approval in principle" study.
- Where Telstra cannot provide the preliminary information to the customer within 5 working days, Telstra will notify the access seeker of the expected date the information will be provided. In the event an access seeker has filed multiple applications, in my experience, Telstra Wholesale will liaise with the access seeker to determine which applications are of highest priority, so Telstra can concentrate its efforts on completing these responses first.

- In completing the preliminary information response, Telstra will check the availability of space on the tower from its records, including taking into account any existing Telstra and access seeker infrastructure on the tower, and any reservations on that tower by Telstra and other access seekers. It will consider in more detail the particular requirements of the access seeker and its own reservations to ensure that they are still current and required.
- This preliminary response is valid for 90 working days from the date Telstra provides it to the customer. This preliminary information is not intended to conclusively demonstrate that access is available or unavailable.
- From my experience, the preliminary information stage is used as a way of getting a sense of the available capacity on the facility and determining whether it will be suitable for its requirements prior to proceeding with a co-location application. At the same time as making a Level 1 application, access seekers will be exploring other infrastructure options, such as building their own tower or co-locating on a different structure. In my experience, access seekers do not usually provide reasons for not proceeding further.
- In the last two financial years, FY15 and FY16 respectively, Telstra has received and responded to approximately 851 and 1,277 preliminary information requests from wholesale customers.

# Level 2: Approval in Principle

- Within 90 working days of receiving the preliminary information response from Telstra, the access seeker may choose to make a Level 2 application, seeking approval in principle from Telstra to install the access seeker's infrastructure on a particular Telstra Mobile Facility. This is called a request for an Approval in Principle study, or an "AIP" study.
- As part of a Level 2 application, the access seeker must pay an administration fee and provide Telstra with information pertaining to the works they wish to undertake including:
  - (a) details of the proposed equipment they wish to install and technical information about this equipment;
  - (b) details of proposed equipment housing to be included on the site;
  - (c) the nature of access sought;
  - (d) site plans/drawings marked up with the access seeker's proposed installation; and
  - (e) the work schedule proposed by the access seeker.
- If requested by either party, the access seeker and Telstra will meet to discuss this request and resolve any issues around the information supplied. In my experience, if the information supplied by an access seeker is incomplete, Telstra will generally deal with this by contacting

the access seeker and giving them an opportunity to provide the information required, rather than rejecting the application outright and requiring the access seeker to resubmit. This can, however, result in time delays.

- Generally, within 15 working days of receipt of a request for an AIP study, Telstra uses its best endeavours to review the Level 2 application, assess the proposed equipment and provide a response to the customer stating that:
  - (a) approval in principle is granted;
  - (b) approval in principle is conditionally granted. Conditional approvals are discussed further in section 6.3 below; or
  - (c) the request for approval in principle is rejected. Rejections are discussed further at section 6.4 below.
- In the last two financial years, FY15 and FY16, respectively, Telstra has received and responded to approximately 652 and 535 Level 2 requests from wholesale customers and has approved (some with conditions) 572 and 520 Level 2 requests.

#### Level 3: Design & Construction Proposal

- If Telstra approves a request (conditionally or unconditionally), the access seeker has 90 working days to notify Telstra of its intention to proceed and submit a Level 3 D&CP.
- This request must contain information of sufficient quality and detail to permit Telstra to assess the proposal for the purpose of approving the design and construction of the tower sharing. Telstra endeavours to review the D&CP provided and approve or reject it within 20 working days. These are provisions that allow for extensions to these timeframes if needed.
- 66 Telstra's response to a D&CP may state:
  - (a) that the D&CP is approved;
  - (b) that Telstra requires further information (in which case Telstra will endeavour to respond within five working days of that information being provided);
  - (c) that the D&CP is conditionally approved and what conditions must be met including, if relevant, any make ready work required and any specific security arrangements applicable to that site; or
  - (d) that the D&CP is rejected, the technical and other reasons for rejection.

- 67 Telstra may reject a D&CP if the proposal:
  - (a) does not relate to the installation of equipment for a permitted use;
  - (b) is not in accordance with the Level 2 application and approval;
  - (c) is not technically feasible; or
  - (d) is not in accordance with the access agreement.
- In parallel with a Level 3 application, it is my experience that the access seeker will also progress other processes necessary for co-location, for example, inquiries around site acquisition and necessary site preparations.
- The number of Level 3 applications that Telstra has received from wholesale customers and approved over the past ten years is set out in Table 2 above at paragraph 33. In my experience, similar to the approach taken to AIP requests described above in paragraph 61, if the information supplied by an access seeker is incomplete, Telstra will contact the access seeker and request they either provide the additional information or make a new Level 3 application, rather than rejecting the D&CP outright and requiring the access seeker to start the co-location process again.

#### Level 4: Order for facilities access

- Prior to sometime in 2008, the access seeker had to lodge an order for facilities access with Telstra at the time of, or following, approval of the DC&P.
- The feedback from access seekers and the Telstra team dealing with co-location requests was that this step was unnecessary, consequently, it was removed and Telstra does not require this step even if it is set out in the access seeker's current commercial contract.

#### Level 5: Construction activity request

- An approved DC&P is valid for 24 months. At any time during this period, the access seeker can submit a Construction Access Request (CAR) in relation to the relevant Telstra Mobile Facility. As part of the CAR, the access seeker must submit information and forms related to the proposed construction work including the following:
  - (a) an attendance request application form;
  - (b) a method of procedure;
  - (c) a safe work method statement or safety analysis; and

- (d) a planned service interruption request.
- After the CAR is submitted, Telstra and the access seeker need to agree when this work will take place and if there is to be any outage at the Telstra Mobile Facility as a result of the construction activity, agree when the outage will take place. This is important for network management as any outage will affect some customers' network service and quality. Telstra will use reasonable efforts to respond to a CAR within 2 working days.
- In my experience, prior to lodging a CAR, the access seeker will negotiate with the relevant land holder to get access to the site and with the local council if any development approvals are required as a result of the co-location request. Generally development approvals are only required in the case of major structural upgrades. Telstra is not usually involved in this part of the process, although it does require the access seeker to confirm, prior to approving the CAR, that these have been obtained.
- Once Telstra has approved the CAR, all of the construction work is carried out by the access seeker on the terms agreed. Telstra is not responsible for completing any of this work.
- In the last two financial years FY15 and FY16, Telstra has approved more than 500 Level 5 CARs for other carriers to install equipment on Telstra's towers. Over 450 of these applications were requests lodged on behalf of Optus, VHA or NBN Co. The remainder were lodged by smaller carriers.

#### Level 6: Post-construction activities

Within two working days following the completion of construction activity, the access seeker must notify Telstra that the construction is completed. Within 10 working days, the access seeker must provide an update on any variations as a result of the construction activity. Within 20 working days, the access seeker must provide Telstra with "as built" drawings so that Telstra has an accurate record of what work has been undertaken. However, this step is not required if there are no changes to the drawings provided to Telstra as part of the D&CP process.

#### 6.3 Conditional approval of co-location requests

- As noted in paragraph 62 above, following receipt of a Level 2 application requesting Telstra to approve a co-location request, Telstra may grant an approval in principle, grant an approval in principle subject to certain conditions or reject a request. Below, I set out further details on the circumstances where Telstra may approve a request subject to certain conditions or reject a request.
- 79 If Telstra conditionally grants approval in principle, it will provide the access seeker with details of the Telstra Mobile Facility, any make ready work required and the special conditions to be fulfilled prior to co-location.

In my experience, the majority of conditions placed on an approval in principle relate to the capacity of the Telstra Mobile Facility in question. Capacity issues can arise due to physical space restrictions or the loading limitations of the particular structure. Some co-location requests require structural upgrades due to capacity constraints on a tower, but this is typically in densely populated areas. In rural and remote areas, a high proportion of Telstra Mobile Facilities have more physical capacity, meaning co-location is more straightforward. This is due to a variety of factors including the Telstra towers in rural areas tending to be larger structures, lower demands for infrastructure and more available physical space on them.

#### Space availability

All Telstra Mobile Facilities have a finite amount of physical space available. If some, but not all, of the required space is physically available, Telstra may approve an access seeker's request subject to a reduction or alteration to the access seeker's request (for example, installation of 18 antennas rather than 24).

#### Structural loading limits

- For safety reasons Telstra Mobile Facilities are subject to structural loading limits and must be designed and constructed in accordance with relevant Australian Standards and the Building Code of Australia.
- As part of the response to a Level 2 application, Telstra conducts a review of the loading that will be placed on the relevant Telstra Mobile Facility following installation of the access seeker's proposed equipment. This review takes into account any current reservations (including Telstra and access seeker reservations) on the Telstra Mobile Facility. If the additional proposed equipment will not exceed the total loading capacity of the Telstra Mobile Facility (i.e. loading will be less than 100 per cent) inclusive of Telstra's and access seeker reservations, a structural upgrade to the Telstra Mobile Facility is not required and Telstra will approve the co-location request. However, if the total loading capacity will exceed 100 per cent inclusive of Telstra and access seeker reservations as a result of their proposed equipment, a structural upgrade to the Telstra Mobile Facility will be necessary. Telstra can therefore only approve new access seeker requests subject to the access seeker agreeing to undertake that structural upgrade. This may include a contribution by Telstra in certain circumstances.
- If an access seeker already has equipment present on the Telstra Mobile Facility, and the proposed additional equipment would result in a less than 2.5 per cent increase in the overall structural loading on the facility (taking into account all reservations), access seekers will still be permitted to install their equipment without a structural upgrade provided that the structural loading on the facility will be less than 100 per capacity where Telstra's current reservations are

not taken into account. This is available to each existing access seeker on a tower once per tower.

This discounting of existing Telstra reservations in the structural loading analysis allows existing access seekers to upgrade their equipment or make minor additions without needing to perform a structural upgrade. However, if the loading is going to be greater than 100 per cent, even discounting Telstra reservations, a structural upgrade to the Telstra Mobile Facility is necessary. Telstra will therefore only approve such requests subject to the access seeker agreeing to undertake that structural upgrade.

#### Wind Code requirements

- In my experience, another key structural factor that may affect a Telstra Mobile Facility's capacity is wind loading standards. Part 2 of AS1170 Structural design actions Wind actions, commonly referred to as the "Wind Code" sets out the procedures for determining wind speeds in various regions around Australia and resulting structural design factors that must be taken into account.
- In the case of antenna support structures (towers and monopoles), the loading due to wind action is usually more significant than loads due to either self-weight (the structure and equipment on it) and/or live loads (people related). This issue is particularly relevant in regional areas of Queensland or the Northern Territory that are considered 'cyclonic' regions.
- These standards are updated by the Australian Standards Board from time to time which can alter the existing structural loading limitations on affected Telstra Mobile Facilities. For example, in December 2012, Australian Standards revised the drag coefficient for circular cylinders and for lattice towers and frameworks made up of circular members. This change affected structural loading calculations for monopoles. In particular, Telstra has been informed by its structural suppliers that this amendment has resulted in an increase in the structural loading for monopole structures from 18 per cent to 20 per cent. This means that the structural loading on the monopole is higher than previously assumed and will need to be taken into account the next time the structural loading limit is calculated for the purposes of assessing a co-location request.
- Telstra undertakes a review against these standards as part of its assessment with a Level 2 application. If installation of an access seeker's equipment would place a structure outside these standards, Telstra can only approve these requests subject to the access seeker agreeing to undertake a structural upgrade.

#### 6.4 Reasons why Telstra may reject a co-location request

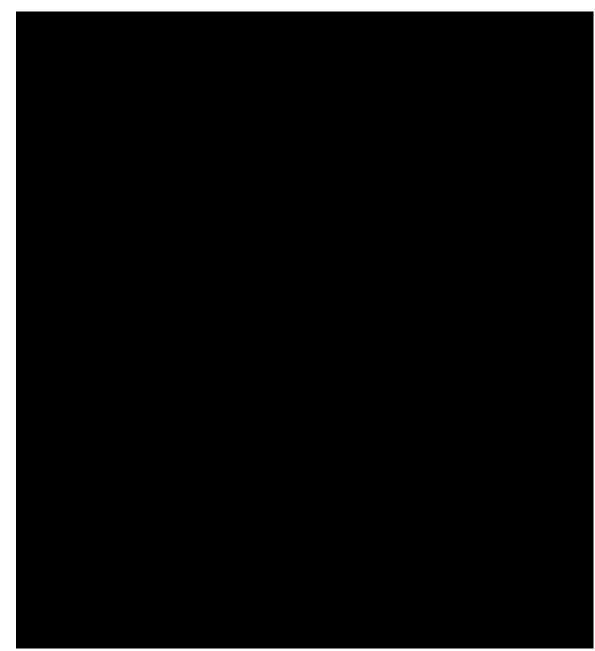
- Based on my experience, Telstra uses all reasonable endeavours to approve a co-location request and, consistent with the requirements of the Act and the Facilities Access Code, will only reject a co-location request if the proposal is not 'technically feasible' or otherwise not in accordance with access agreement between Telstra and the access seeker. There are a number of reasons why a project may not be technically feasible, including:
  - (a) the requested equipment cannot be properly accommodated on the site either because capacity issues may exist which cannot be overcome by a structural upgrade, for example, certain types of structural upgrades, such as increasing the height of a structure may be limited by state and territory planning laws and restrictions; or
  - (b) installation of the equipment requested by the access seeker may result in electromagnetic interference between that equipment and equipment already installed on the facility. Rejection for this reason is relatively rare, but may arise in circumstances where there is insufficient vertical and horizontal separation between the access seeker's proposed antennas and the existing equipment; or
  - (c) installation of the equipment requested by the access seeker may result in significant technical and/or engineering difficulties, for example, if there is a reasonable risk that such access would cause damage to Telstra's or a third party's equipment or unreasonably jeopardise the integrity, confidentiality or security of Telstra or third party communications, or give rise to a significant risk to the health and safety of Telstra or third party employees. Rejection for this reason is relatively rare, as Telstra and the access seeker will generally try to negotiate an alternative proposal to address the difficulties.
- In the event a Level 2 request is granted conditional approval or rejected, Telstra provides access seekers with the reasons for the conditions or rejection. If requested by the access seeker, Telstra will further discuss these reasons and what amendments, if any, can be made by the access seeker to overcome this rejection. In my experience, Telstra will use its best endeavours to agree an amended request for an approval in principle and provide the access seeker with an additional period to submit this amended request.
- In my experience, there can also be a range of internal business reasons why access seekers do not proceed with co-location requests including the cost of necessary structural upgrades, lack of available capex, an alternative location may be available or the available aperture height may not be suitable for the access seeker's requirements.

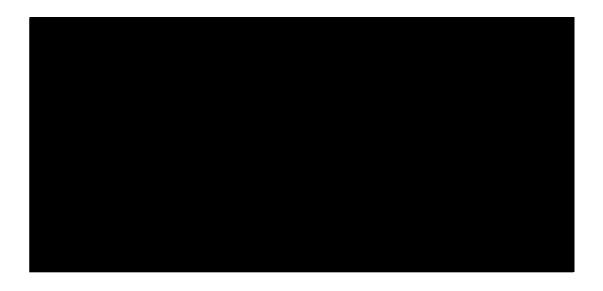
- 93 In the previous two financial years (FY15 and FY16), Telstra has:
  - (a) received approximately 2,128 Level 1 requests from wholesale customers;
  - (b) received approximately 1,187 Level 2 requests from wholesale customers and has approved approximately 92 per cent of these requests; and
  - (c) received approximately 926 Level 3 requests from wholesale customers and has approved 98 per cent of these requests.
- As set out above, in most instances Telstra will not be informed of the reason why the access seeker decides not to progress a co-location request.

#### TOWER SHARING CASE STUDIES

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Signature

Robert John Joice, General Manager for Wireless Strategic Solutions, Telstra Corporation Ltd

Date: 1 December 2016

# **ANNEXURE CERTIFICATE**

Prepared on behalf of: Telstra Corporation Ltd

Australian Competition and Consumer Commission

Domestic mobile roaming declaration inquiry 2016

This is the annexure marked "RJJ-1" to the statement of ROBERT JOHN JOICE dated 1 December 2016.

**Annexure RJJ-1** 

#### **Curriculum Vitae**

Name: Robert John Joice

**Business Address:** Level 6, 231 Elizabeth Street, Sydney 2000

**EDUCATION** 

**Tertiary Education:** Valuation of Real Estate Certificate (Sydney TAFE, 1978)

#### PROFESSIONAL ASSOCIATIONS

- Mobile Carriers Forum National Council Member (past Chairman on three occasions)
- NSW Mobile Carriers Forum Council (past Chairman)
- In Building Coverage Steering Committee (past Chairman)
- Previous member of Australian Property Institute

#### **CAREER HISTORY**

#### **Telstra Corporation Limited**

Since the commencement of my employment with Telstra in April 2003, my role has continued to evolve and grow. I was initially recruited as National Site Acquisitions Manger for Wireless deployment. As some structural inadequacies were identified, the business agreed to restructure the resources to provide greater regional and national accountability. This provided me with an opportunity to focus on higher level matters with a smaller team of experts, while still having an ability to direct the regional teams.

#### January 2013 to Present

General Manager, Wireless Strategic Solutions, Telstra Operations.

This role has direct management of a team of 10 staff and contractors. My primary areas of responsibility include:

- Engagement with carriers in relation to sharing of telecommunications facilities, the resolution of inter-carrier disputes in relation to site sharing issues on a site by site basis, and variations to agreements.
- Negotiation (and renegotiation) of master tenure agreements with major government and private landowners, nationally and State based. To date more than 280 such documents have been concluded.
- Resolution of legacy tenure issues of various levels of complexity, including native title claims on network sites.
- Ownership of the Telstra network budget for Wireless facilities circa \$165m
- Ownership of the Telstra Operations Site Acquisitions Manual for staff and contractors.
- Establishment of Rental Guidelines for network facilities.
- Approval/ refusal of all Business cases above the endorsed Rental Guidelines.
- Relationship and program management of all Telstra wireless installations on BAI and Axicom facilities. This includes Business Case approval for all proposals.
- Management of the development of the MCF IBC Specification and current revision.
- Development of the DAS Agreement and subsequent revisions.
- Oversight of all IBC deployment by Telstra in partnership with other carriers or in isolation.
- Oversight of Deployment Code Consultation and notification by Telstra contractors.
- Oversight of EME Compliance issues.
- Community Consultation support for highly contentious deployment proposals.
- Management of legislative and regulatory amendment proposals with local government,
   State planning Departments and the Commonwealth Department of Communications, in relation to wireless deployment and Facilities Access.

- Management or direct engagement in planning appeals in state planning courts and tribunals, or Supreme Court actions or Federal Court proceedings in relation to wireless and fixed network facilities.
- Constant engagement with Telstra Property to provide direction and approval for all wireless tenure renegotiations.
- Development of strategies to reduce network rental growth.
- Provide directions to Telstra Property in the management of the network's portfolio.
- Management of Wireless deployment complaints directed to the CEO.
- Resolution of escalated Facilities Access issues with other carriers.

#### April 2003 - January 2013

National Manager, Site Acquisition, Telstra Operations

As National Manager, my responsibilities were predominantly the same as those listed above with the exception of Opex budget ownership

#### **Hutchison Australia Pty Ltd**

August 2002 - April 2003

Site Acquisition Officer, Hutchison Australia

This role largely reported to the Deputy Chairman and focused on the resolution of difficult deployment initiatives which required escalation to various senior levels of State government (Ministers and Directors General). My responsibilities included:

- Negotiation of Tenure documents with various government departments
- Management of the build of highly contentious deployment initiations

This leveraged on relationships developed during my tenure with Vodafone.

#### **Vodafone Networks Pty Ltd**

November 1996 - August 2002

National Site Acquisition Manager

Commencement employment in November 2002 with responsibility for the deployment of wireless sites, in ACT, NSW, QLD, NT and WA. This required a substantial amount of travel and management of town planners, design consultants and site acquisition consultants. Additionally, I was responsible for negotiating with other carriers regarding sites, management of planning appeals, contentious site management and the negotiation of tenure agreements with major land owners. During this time I negotiated agreements with various energy authorities for the use of their HV towers for mobile facilities.

After 4 year, I moved to a national management function to focus on the higher level issues and disencumber the site acquisition officers from the more difficult and protracted negotiations.

#### **Integral Energy**

September 1993 – November 1996

Property Manager

Property management of all Integral Energy properties including disposal of surplus assets. In this role I was responsible for the first lease of land to a telecommunications carrier.

Prior to 1993, I worked as a consultant valuer, in private practice, with RV Dimond Valuations Pty Ltd as manager of the valuation department and with the Commonwealth Bank.

# **ANNEXURE CERTIFICATE**

Prepared on behalf of: Telstra Corporation Ltd

Australian Competition and Consumer Commission

Domestic mobile roaming declaration inquiry 2016

This is the annexure marked "RJJ-2" to the statement of ROBERT JOHN JOICE dated 1 December 2016.

**Annexure RJJ-2** 

# **TELSTRA SITESHARE**



#### **COLOCATION SUBMISSION GUIDE**

Document Id:	Issue Number:	This Issue Dated:
APP-8004	15	17-Jul-15
Division:	Business Unit:	Sub Unit:
Telstra Property	Business Management & Operations	Facilities Access
	BU General Manager:	SU Manager:
	Philippa MORRISSEY	Craig ARMSTRONG
		Author:
		G.P. (John) BLASETTI Siteshare Co-ordinator

# **Summary:**

A telecommunications site is a physical address defining the geographic location of one or more pieces of Radio Frequency (RF) Transmitting Infrastructure, and includes all elements contained therein.

A Telstra site is any site where Telstra owns or has control over access into that site, including access to the site by other parties, by virtue of being the land owner, or the lessee.

An Access Seeker requiring entry into a Telstra site in order to 'collocate'; that is to ...

- mount antennae etc. onto a Telstra structure, and / or
- situate radio transmission equipment either inside a *Telstra building*, or within their own on-site shelter

is required to lodge specific documentation and certification to *Telstra Front Of House (FOH)* for review as part of Telstra's established site sharing protocols.

Telstra's preferences (in order) for the housing of equipment associated with a colocation follows ...

a. Where a permanent 1	b. If no permanent Telstra building is available	
i. Where 'Radcom' floorspace is available	ii. Where <u>no</u> 'Radcom' floorspace is available	
The Access Seeker shall situate the equipment to be collocated within the 'Radcom' floorspace	The Access Seeker shall situate a shelter / hut on adjacent land (where reasonably available)	The Access Seeker shall situate a shelter / hut on adjacent land (where reasonably available)
On the Telstra site (if suitable space is available)	The Access Seeker shall situate a shelter / hut within the Telstra site (if suitable space is available)	2. The Access Seeker shall situate a shelter / hut within the Telstra site (if available)
The Access Seeker shall situate a shelter / hut on the roof of the permanent building, if practicable	3. With Telstra's approval, the Access Seeker shall establish new / additional 'Radcom' floorspace within the permanent building, if practicable	NOTE: All the options listed (left and above) apply only to Telstra Network Buildings (i.e. Exchanges)
	The Access Seeker shall situate a shelter / hut on the roof of the permanent building, if practicable	Telstra Radio Network Engineering (RNE) does not present space within their shelters for colocation.

The *Telstra Siteshare Co-ordinator (SSC)* is tasked with inspecting the documents provided, with due diligence. Once satisfied that the Access Seeker has complied with Telstra's prescribed requirements, the SSC then acts to grant the requested access to the Access Seeker.



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### 1 Purpose

This document provides assistance with the preparation of Telstra's prescribed requirements, for Access Seekers requesting to enter Telstra sites in order to install radiocommunications facilities under Carrier agreements, for example 'CRA31 Facilities Access to Antenna Support Structures and/or Radiocommunications Sites', or 'CRA35 Facilities' or equivalent contractual arrangements.

This document provides general guidance only. This document is not a contractual document which affects either party's legal rights and obligations, and should not be used as a substitute for an Access Seeker's or Customer's contract with Telstra. Access Seekers should refer to their contract with Telstra to identify their specific requirements for colocation and any applicable legislative rights and obligations.

### 2 Scope

The Telstra site sharing process consists of a sequence of levels (or checkpoints), each with specific requirements. In order to gain access to the Telstra site, the Access Seeker must satisfy the requirements for each level (unless these requirements are waived by Telstra, or as otherwise set out in the Access Seeker's contract with Telstra).

#### 3 What is colocation?

Under the Telecommunications Act 1997, carriers are encouraged to share sites by collocating new mobile phone facilities within established sites, so as to minimise the proliferation of sites in any given area. The Code of Practice requires a carrier to take all reasonable steps to utilise existing facilities when installing a low-impact facility.

# 4 What is Telstra site sharing?

As administered by the SSC, Telstra site sharing is an end-to-end process established to ensure that any works proposed at a Telstra controlled site comply with Telstra's requirements in relation to design, certification, construction, occupational health and safety, electromagnetic energy and record keeping. Conceptually, the Telstra site sharing lifecycle spans predefined checkpoints (termed Levels), each representing a logical milestone from inception through to final commissioning. At each Level, Telstra requires that specific documentation be duly prepared, signed-off and submitted by the Access Seeker or an appointed agent.

Typically, the Access Seeker can initiate the process by lodging a formal e-mail request for colocation with Telstra Wholesale at '! TW Site Share'.

Related documentation, in the form of Technical Resources, Order Forms and Technical Documents, is available online at 'http://www.telstrawholesale.com.au/products/facilities/tower-site-sharing/index.htm#tab-2'.



# 5 The Telstra site sharing Levels

Telstra expects the Access Seeker to submit proposals for colocation (also called 'orders') in the following sequence. Deviations from the below schedule will only be considered subject to consultation with <u>FOH</u>.

Level	Title	Code	Remarks
1	Preliminary Information Request	PIR	Telstra provides basic information about a nominated Telstra site.
2	Approval In Principle	AIP	The Access Seeker outlines in <u>general</u> terms, all works proposed to be undertaken at a nominated Telstra site.
3	<u>D</u> esign and <u>C</u> onstruct <u>P</u> roposal	DCP	The Access Seeker confirms in <u>specific</u> terms all the works to be undertaken at a nominated Telstra site, providing final detail, structural and <u>EME</u> certification, and consultation as required.
4	<u>O</u> rder for <u>F</u> acilities <u>A</u> ccess <sup>®</sup>	OFA	The Access Seeker makes formal application for a licence to access the nominated Telstra site.
5	<u>C</u> onstruction <u>A</u> ctivity <u>R</u> equest <u>C</u> onstruction <u>A</u> ctivity <u>C</u> ompletion <sup>★</sup> <u>S</u> ite <u>I</u> nspection <sup>†</sup>	CAR CAC PSI	The Access Seeker makes formal application to gain access to the nominated site.  The Access Seeker advises Telstra that the proposed works have been completed.  Telstra carries out a review of the completed works.
6	<u>As B</u> uilt <sup>≮</sup>	ASB	The Access Seeker provides final 'As Built' drawings, as well as photographs confirming the finished works.

No longer in operational use, but may remain contractually; principal elements have been incorporated into Level 3 for operational purposes.

For each separate level the SSC reviews and evaluates the submitted material(s) against the contractual requirements. Where the SSC detects a significant departure from said requirements he may decline the order, and request correction, and resubmission.

The SSC then presents the tabled documents to the responsible Telstra stakeholder(s) for their specialist appraisal. Subsequent to a specified lead time, instigated to afford the Telstra stakeholders time to analyse the tendered material(s) and respond, the SSC then compiles the stakeholder responses into an assessment document, which itemises key details of the proposal. The SSC then finalises and issues the assessment document, which contains a recommendation for <u>APPROVAL</u>, <u>CONDITIONAL APPROVAL</u> or <u>REJECTION</u>. A predefined turn-around timeframe applies to each level.

A recommendation for *APPROVAL* can be issued only when the *SSC* and the responsible Telstra stakeholder(s) are satisfied that the Access Seeker has met all the documentary requirements for a particular level.

Typically an order progresses to the next level by attaining an APPROVAL.

Alternatively the *SSC* may deem that detected deviations from the requirements are minor, and could potentially be rectified 'in transit'. As well the *SSC*, in consultation with the responsible Telstra stakeholder, may conclude that an imposed objection can likewise be addressed 'in transit'. In such cases the *SSC* has licence to issue a *CONDITIONAL APPROVAL*. It is then incumbent upon the Access Seeker to address the reported irregularities within the framework of their subsequent request or order for the next level.

Site Inspection (PSI) is currently not being performed by Telstra.

Construction Activity Completion (CAC) is currently incorporated with As Built (ASB)



However, in cases where the SSC detects a significant departure from the requirements for an order, or where a Telstra stakeholder objects to the proposed works, then a REJECTION will result. In such cases the Access Seeker is required to address the reported issue(s), and re-submit that failed level.

The Access Seeker must proceed to the next level within the specified <u>validity period</u>. Subsequent to a recommendation for APPROVAL or CONDITIONAL APPROVAL, except for in response to providing Preliminary Information under Level 1, the Access Seeker acts to reserve on behalf of the Access Seeker, the proposed location(s) of antennae and equipment for the applicable validity period. The interlude is intended to allow sufficient time for the Access Seeker to compile and submit the material for the next level. Please check your contract with Telstra to determine the circumstances in which Telstra will grant a reasonable extension to the validity period.

In cases where the Access Seeker wishes to change / replace existing equipment which is malfunctioning or has become defective, it may not be necessary to progress through each stage as set out above (refer paragraph 8 "The replacement of malfunctioning, faulty or defective elements").

### 6 Documentary requirements for Telstra site sharing levels

E-mail(s) should be directed to FOH (i.e. Telstra Wholesale '! TW Site Share'), with requisite documentation attached.

Telstra requests that the below format be applied to the e-mail 'Subject:' line ...

#### L? SUBMISSION XXX999 ACCESS SEEKER @ TSite Sss RFNSA No. ??? (OTHER LABELS)

		LEGEND	
L? SUBMISSION	The relevant Level eg. L1, L2, L3, L5, L6	@ TSite Sss	Telstra's site name and State eg. GULLIVER EXCHANGE QLD
XXX999	The Telstra order number, as allocated by FOH (NOTE: omit for L1)	RFNSA No. ???	The Radio Frequency National Site Archive (NSA) site number
ACCESS SEEKER	The Access Seeker eg. Optus, OJV, Vodafone, VHA, VJV, NBN, Broadcast Australia, WA Police etc	(OTHER LABELS)	Any other labels applicable

Standard templates and instructional articles are available online at 'webshttp://www.telstrawholesale.com.au/products/facilities/tower-site-sharing/index.htm#tab-3'.



# 6.1 Level 1 : Preliminary Information Request [PIR]

1. To be submitted by the Access Seeker	An FOH Siteshare order form with 'Lvl 1 Prelim' tab filled out	(refer 'Order forms' on the FOH website)	
2. Size limit for each attachment	0.5 Mb		
3. As issued by Telstra	<ul> <li>a. An L1 DETAIL document containing         <ul> <li>Information specific to the site</li> <li>a list of the antennae loaded and reserved on the structure</li> </ul> </li> <li>ancillary devices (eg. RRU's) affixed to the structure</li> <li>sample L1         <ul> <li>assessment.docx</li> </ul> </li> <li>b. If specifically requested and subject to availability, Telstra proprietary drawing (i.e. site plan, elevation, building layout)</li> <li>IMPORTANT – PLEASE NO</li> <li>During a structure's life cycle, Telstra may embark on planned maintenance in some cases, this may require many of the elements deployed on the structuring the refurbishment process, associated radio services may be disented by prior to the works commencing Telstra will advise the timing and expectations.</li> <li>Telstra will make every reasonable attempt to keep service disruptions.</li> <li>Telstra will not provide a temporary structure, nor relocate tenants' anteduration of the refurbishment process.</li> </ul>	e and/or structure refurbishments. ucture to be replaced, or refurbished srupted, ted duration of service disruption, to a minimum,	
4. Telstra turn-around timeframe	Within 5 business days from receipt of the L1 order		
5. Validity period	The currency for this stage will expire as stipulated within the extant contract, after which resubmission is required However, prior to expiration of the validity period, the Access Seeker may make application for an Extension Of Time (EOT)		



# 6.2 Level 2 : Approval In Principle [AIP]

a. An FOH Siteshare order form with 'Lvl 2' tabs filled out (refer 'Order forms' on the FOH website) 1. To be submitted by the Access Seeker A concise 'scope of proposed works v? to be used with every Level 2 & 3 application.docx' proforma detailing all the works to be undertaken • generic model description accepted (eg. a '1.2<sup>m</sup> SOLID PARABOLIC' as opposed to an 'ANDREW HP4-144') • when proposing a mounting height for antenna(e) and / or ancillary equipment, kindly nominate the 'centre line (C/L)', or 'base line (B/L)' height of the item (as applicable), and maintain a minimum separation of 0.5<sup>m</sup> from items above and below, whether existing or proposed scope of proposed works v3 to be used For Construction (FC) drawings, including a description with specific diagram(s) of any associated structural upgrade(s); as well as proposed antenna mounting arrangement(s), equipment shelter / hut / cabinet location etc Where it is proposed to situate equipment within a Telstra space (Exchange or shelter), then a duly filled out 'FTDB data entry parameters proforma v?.docx is mandatory FTDB data entry parameters proforma • To assist with the preparation of this document, the 'Corporate Standard 007338 C4-3 - Power & Earthing at Shared Sites - A.C Services.pdf is available Any other document(s) deemed pertinent to the proposed works The Access Seeker is required to provide specifications relating to the following elements ... Make / Model Mounting height (m) Extension to Structure Antenna J Feeder cable Junction device (MHA, TMA, Diplex) Equipment shelter, trench, slab Headframe Other structure mounted device 3.5 Mb 2. Size limit for each attachment An L2 ASSESSMENT document with the OUTCOME of 'APPROVAL', 'CONDITIONAL APPROVAL' or 'REJECTION' 3. As issued by Telstra sample L2 assessment.docx • following an 'APPROVAL', or a 'CONDITIONAL APPROVAL', the Access Seeker may progress to the next level · a 'REJECTION' requires the current level to be resubmitted Within 15 business days from receipt of the L2 order 4. Telstra turn-around timeframe

The currency for this stage will expire as stipulated within the extant contract, after which resubmission is required

However, prior to expiration of the validity period, the Access Seeker may make application for an Extension Of Time (EOT)

5. Validity period



# 6.3 Level 3 : Design And Construct Proposal [DCP]

1. To be Submitted by the Access Seeker

a. An FOH Siteshare order form with 'Lvl 3' tabs filled out

(refer 'Order forms' on the FOH website)

- A concise 'scope of proposed works v? to be used with every Level 2 & 3 application.docx' proforma detailing all
  the works to be undertaken
  - specific make / model description required (i.e. an 'ANDREW HP4-144' as opposed to a '1.2m SOLID PARABOLIC')
  - when proposing a mounting height for antenna(e) and / or ancillary equipment, kindly .
    - nominate the 'centre line (C/L)', or 'base line (B/L)' height of the item (as applicable), and
    - maintain a minimum separation of 0.5<sup>m</sup> from items above and below, whether existing or proposed
  - alignment with preceding L2 ASSESSMENT ...
    - with respect to item quantities, height, and equipment location
    - highlight any minor variations from the preceding L2
- c. Professional quality and up-to-date For Construction (FC) drawings, including a detailed description, with specific diagram(s) of any associated structural upgrade(s); as well as proposed antenna mounting arrangement(s) and featuring a site plan, elevation, antenna table, shelter location and / or equipment positioning etc
- d. Current photos of the site and the structure (refer to Section 8.1 of '018947 Deployment Rules for Telstra Antenna Support Structures (Access Seeker use only).pdf)
- e. Where applicable, the applicant must provide evidence of timely landlord consultation, and / or notification to other co-sited tenants
- f. The proforma 'a final checklist for a level 3 design & construct [D&C] submission.docx' is provided to assist with compilation of the pack



#### WITH RESPECT TO STRUCTURAL ADEQUACY

- g. Telstra enforces strict compliance with the requirements outlined within the '018947 Deployment Rules for Telstra Antenna Support Structures (Access Seeker use only).pdf, please read this document
- h. Telstra requires the <u>mandatory</u> proforma '018947f01 Structural Design Certification (Access seeker use only).docx' duly prepared by a <u>qualified</u> and Telstra <u>accredited</u> structural engineer



NOTE. For guidelines to assist with the preparation of this proforma, refer to ...

- '018947f01 Structural design Certification Help Notes (Access seeker use only).pdf, and
- Section 9 of the '018947 Deployment Rules for Telstra Antenna Support Structures (Access Seeker use only).pdf
- The associated <u>Structural Analysis / Structural Report</u> duly prepared by a <u>qualified</u> and Telstra <u>accredited</u> structural engineer, incorporating all elements loaded onto the structure, its footing, and the proposed mounting arrangements.

NOTE. Structel P/L is a recognised provider of structural analyses tel: (03) 9654 7344 e-mail: 'structel@structel.com.au'

#### WITH RESPECT TO EME COMPLIANCE

- j. Telstra EME compliance standards are published within '005486\_-\_Site\_Compliance\_and\_Safe\_Work\_Procedure\_-\_Revision\_4\_(2014-10-23).zip'
- k. An EME design review proforma 'EME Design Guide Part 11-Form F02 16 12 14.docx' addressing ...
  - Preliminary RF Hazard drawings showing the existing and proposed RF emitting equipment
  - Up to date photos of the site and the surrounds
  - Current and proposed access and signage regime for the site
  - Any other relevant information to help obtain a holistic view of the site and the request for exemption from the EME Design Guidelines





1. To be Submitted by the Access Seeker (continued)	In the event the proposed design (Form F02) is not approved by Telstra, the access seeker can either  • rectify the offending elements, then resubmit the amended pack comprising a revised 'EME Design Guide Part 11-Form F02 16 12 14.docx  • resubmit the original design pack for escalation and further review via the 'EME Design Guide Part 10-Form F01 16 12 14' proforma    EME Design Guide Part 10-Form F01 16
	<ul> <li>Where level 2 is to be bypassed, those requirements which would have applied at L2 must now be incorporated into the L3 submission.</li> </ul>
2. Size limit for each attachment	3.5 Mb
3. Telstra turn-around timeframe	Within 20 business days from receipt of the of the L3 order.
4. As issued by Telstra	An L3 ASSESSMENT document with the OUTCOME of 'APPROVAL', 'CONDITIONAL APPROVAL' or 'REJECTION'  sample L3 assessment.docx  • following an 'APPROVAL', or a 'CONDITIONAL APPROVAL', the Access Seeker may progress to the next level • a 'REJECTION' requires the current level to be resubmitted
5. Validity period	The currency for this stage will expire as stipulated within the extant contract, after which resubmission is required



# 6.4 Level 5 : Construction Activity Request [CAR]

1. To be submitted by the Access Seeker	a. An FOH Siteshare order form with 'Lvl 5' tabs filled out (refer 'Order forms' on the FOH website)			
1. To be subtilitied by the Access Seekel	b. The duly prepared proforma 'Attendance Request Form-008712F11.doc' which must be signed-off by the Access Seeker's project manager / supervisor, and list the names of <u>all</u> attendees to site			
	c. Documents which require prior endorsement from the Network Property Facility Manager.  NOTE. The Access Seeker must submit specific proformas to the Network Property Facility Manager national 'MOP' e-mail boxes			
	NSW F0510914@team.telstra.com  OLD/NT F0511292@team.telstra.com  SA F0511386@team.telstra.com  VIC/TAS F0511386@team.telstra.com  WA F0511385@team.telstra.com			
	The relevant proformas are			
	<ul> <li>the Working In Network Sites</li></ul>			
	<ul> <li>the Hazard Notification</li></ul>			
	Telepower - Environmental - Building.docx'  ◆ the Project Notification			
	the Hot Dust Work Permit			
	TAF0001-673527 ).doc'  ◆ the Safety & Environmental Job Analysis			
	NOTE. The Telstra documents '000169 MOP v.06 Procedure Document.doc' and '013731 Working in Network			
	Sites (v18).doc' are provided to assist with the preparation of the respective proformas			
	The following guidelines must be observed  i. All documents are to be in MS Word format for the Network Property Facility Manager registration number to be			
	inserted			
	ti. All documents (WINS, MOP, Hazard, Dust, JSA etc.) where applicable, will need to be attached individually - no '.zip' files			
	The Network Property Facility Manager requires a 10 WORKING DAY turnaround timeframe for administration of			
	the applications  The Network Property Facility Manager will only accept WINS documentation from the Project Manager (i.e. <u>NOT</u>			
	the Sub-Contractor(s)) v. Please be advised that the registration number given to the WINS application should be used as reference for re-			
	registration purposes  vi. If the project work impacts, or is likely to impact, the site Toilet/Amenities then the Toilet/Amenities box is to be ticked on the WINS proforma			
	<ul> <li>d. The 'no variations' proforma 'Level 5 CAR declarations.doc' which must be signed-off by the Access Seeker's project manager / supervisor</li> </ul>			
	Level 5 CAR declarations.doc			
Circ limit for each attachment	L			
Size limit for each attachment     Telstra turn-around timeframe	0.2 Mb  Within 5 business days from receipt of the of the L5 order			
4. As issued by Telstra	An L5 ASSESSMENT document with the OUTCOME of 'APPROVAL' or 'REJECTION'			
4. As issued by Teisua	ATTES ASSESSIMENT GOLDINETIC WILL THE COTTOON AFFROVAL OF RESECTION			
	sample L5 assessment.docx			
	<ul> <li>following an 'APPROVAL' the Access Seeker may proceed with the proposed works</li> <li>a 'REJECTION' requires the current level to be resubmitted</li> </ul>			
5. Validity period	Construction activity must be commenced, finalised and commissioned within the period stipulated by the extant contract, or subject to Telstra agreeing to a request for an Extension Of Time (EOT).			



#### Level 6 : As Built [AsB] incorporating Construction Activity Completion [CAC] 6.5

1. To be submitted by the Access Seeker

The L6 documentation must be submitted .NOTE. to FOH within 2 business days of construction activity completion

a. An FOH Siteshare order form with 'Lvl 6 As Built' tab filled out

(refer 'Order forms' on the FOH website)

- Professional quality and up-to-date As Built (AsB) drawings, including a detailed description, with specific diagram(s), of any associated structural upgrade(s) performed; as well as antenna mounting arrangement(s) installed
- Photographs of all the completed works (refer to Section 8.1 of '018947 Deployment Rules for Telstra Antenna Support Structures (Access Seeker use only).pdf)

#### WITH RESPECT TO STRUCTURAL ADEQUACY AND EME COMPLIANCE

Telstra enforces strict compliance with the requirements outlined within the '018947 Deployment Rules for Telstra Antenna Support Structures (Access Seeker use only).pdf, please read this document

NOTE. The companion document 'AS BUILT PACK.docx' below is provided for clarification ...



Telstra requires the mandatory proforma '018947f02 As Built Construction Certification (Access seeker use only).docm duly prepared by a qualified and Telstra accredited structural engineer

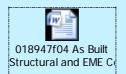


NOTE. For guidelines to assist with the preparation of this proforma, refer to ...

- '018947f02 As Built Construction Certification Help Notes (Access seeker use only).docx', and
- Section 10.5 of the '018947 Deployment Rules for Telstra Antenna Support Structures (Access Seeker use only).pdf
- Telstra requires the <u>mandatory</u> proforma '018947f04 As Built Structural and EME Compliance Certification (Access seeker use only).docm duly prepared by a qualified and Telstra accredited structural engineer, and a NATA certified RF assessor

NOTE. For guidelines to assist with the preparation of this proforma, refer to ...

 Section 10.6 of the '018947 Deployment Rules for Telstra Antenna Support Structures (Access Seeker use only).pdf



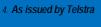
2. Size limit for each attachment

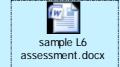
0.2 Mb (not applicable to As Built drawings)

3. Telstra turn-around timeframe

Within 90 calendar days from receipt of the of the L6 order

An L6 ASSESSMENT document with the OUTCOME of 'APPROVAL' or 'REJECTION'





- The awarding of an 'APPROVAL' finalises the submission for colocation
- a 'REJECTION' may require remedial works to be carried out, as well as resubmission



# 7 The decommissioning / recovery of existing infrastructure

1. Entry point	A proposal to decommission / recover existing antennae and / or equipment can be initiated at the Level 3 Design And Construct Proposal [DCP] stage.
2. To be provided by the Access Seeker	a. An FOH Siteshare order form with 'LvI 3' tabs filled out
3. Size limit for each attachment	3.5 Mb
4. Telstra turn-around timeframe	Within 20 business days from receipt of the of the L3 DECOMMISSIONING / RECOVERY order
5. As issued by Telstra	An L3 ASSESSMENT document with the OUTCOME of 'APPROVAL', 'CONDITIONAL APPROVAL' or 'REJECTION'  • following an 'APPROVAL', or a 'CONDITIONAL APPROVAL', the Access Seeker may progress to the next level  • a 'REJECTION' requires the current level to be resubmitted    refer section 6.3.4 for a sample



### 8 The replacement of malfunctioning, faulty or defective elements

There is provision for collocated Access Seekers to exchange / replace / swapout existing equipment which is malfunctioning, or has become defective. The replacement of such faulty antennae, feeder cables or junction devices etc. may be carried out without a formal order for colocation where permitted under (and subject to) the contract between Telstra and the Access Seeker.

However, there remains a clear distinction between the replacement of faulty equipment and the substitution of existing elements in order to bypass the established colocation procedures and protocols.

To distinguish between a maintenance request, and an order for colocation, Telstra FOH will appraise the specification(s) of replacement antenna(e) with respect to ...

- dimensions (length, width, depth, weight, wind loading etc.),
- operating technology and spectrum ( 900MHz, 2100MHz etc. ), and
- mounting height(s) and bearing(s).

Where there is equivalence (within acceptable tolerance), the Access Seeker may be entitled to proceed without following the formal submission process for co-location.

Otherwise, the Access Seeker will be directed to follow the procedures and protocols of an order for colocation as outlined above.

Refer to the below attachment for conditions where commencement of the colocation process at the Level 3 stage may be permissible under CRA 31 and CRA 35





# 9 Document Control Sheet

If you have any questions or suggestions for improving this document, please contact:

Name	Position	Phone	Email
John BLASETTI	Siteshare Co-Ordinator	(03) 8649 4331	John.Blasetti@team.telstra.com

# 9.1 Issue Chronology

Issue #	Date	Details of Change(s) to the Document
12	2-Apr-14	Legal review 27 March 2014 & release for 'In House Training'
13	5-Aug-14	Final Legal review
14	31-May-15	EME compliance added
15	17-Jul-15	Level 1 disclaimer clause added

# 9.2 Glossary

Terminology	<b>Definition</b>
FOH	Telstra Front Of House - typically Telstra Wholesale
Access Seeker	Other Carriers, or Non-Carriage Service Providers (i.e. Non Carriers) such as Police, Shire / Council, Community, Educational Body, TV and radio station etc
Telstra structure	Radio towers, poles, guyed masts, building rooftops, antennae mountings, cable gantries and other structures capable of bearing equipment
Telstra building	A Telstra Exchange, shelter, cabin or outdoor cabinet
Telstra Siteshare Co- ordinator (SSC)	A Telstra operative with responsibility for administering the 3 <sup>rd</sup> party requests for colocation
EME	Electro Magnetic Emission (i.e. the radiation emitted by radio frequency transmitting equipment – typically antennae)
1. APPROVAL 2. CONDITIONAL APPROVAL 3. REJECTION	<ol> <li>Permission to proceed with the submission of documentation for the next level</li> <li>Permission to proceed, but with imposed conditions which must be addressed / corrected within the submitted documentation for the next level</li> <li>The Access Seeker must rectify all offending element(s) before resubmitting the documentation, either in part or in full</li> </ol>
validity period	An interval expressed in business or calendar days



### 9.3 Disclaimer

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