Expert statement in support of application for merger authorisation

RE: TELSTRA CORPORATION LIMITED AND TPG TELECOM LIMITED ARRANGEMENT FOR THE SHARING OF ACTIVE INFRASTRUCTURE AND SPECTRUM IN REGIONAL AUSTRALIA (APPLICATION)

Expert statement on behalf of Gilbert + Tobin

Statement of:	Bruce Rodin
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Date: 27 October 2022

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A INTRODUCTION

- I am a former Vice President of Wireless Networks (VP Networks) at Bell Canada (Bell), a subsidiary of BCE Inc.
- I have been asked by Telstra Corporation Limited's (**Telstra**) solicitors, Gilbert + Tobin, to provide an expert statement in relation to certain matters raised in connection with the application by Telstra and TPG Telecom Limited (**TPG**) to the Australian Competition and Consumer Commission (**ACCC**) for merger authorisation under section 88(5) of the *Competition and Consumer Act 2010* (Cth) (**CCA**).
- My letter of engagement and instructions are provided at **Annexure BR-1**. I have been provided with a copy of the Federal Court's Harmonised Expert Witness Code of Conduct (the **Code**). I acknowledge that:
 - (a) I have read and understood the Code and agree to be bound by it; and
 - (b) where I express opinions in this statement, they are based wholly or substantially upon my specialised knowledge and experience.
- In preparing this statement, I have also been provided with and have reviewed the Statement of Preliminary Views (**SOPV**) published by the ACCC on 30 September 2022.
- I provide this statement to describe my experience and understanding of Multi-Operator Core Networks (**MOCNs**) as they have developed and operated in Canada.
- The matters set out in this statement are based on my personal knowledge and belief, including:
 - my experience and knowledge of wireless networks and engineering, capital
 management, technology development and network strategy over 33 years, including as
 VP Networks for Bell Canada, the largest Canadian wireless operator;
 - (b) my experience and understanding of the operation of MOCNs, including the technical design, operation and implementation of MOCNs from the perspective of a dominant telecommunications provider, Bell, as described in section C below;
 - (c) my experience providing technical advice with respect to acquisition activities
 (establishment of Bell Aliant and Bell MTS) and developing agreements with very small ILEC networks; and
 - (d) my position on the Board of Directors of the Next Generation Mobile Networks.

B EXPERIENCE AND BACKGROUND

- I have experience working across wireless networks over a career spanning 33 years. This includes 13 years at Bell as VP Networks. In this role, I was responsible for end-to-end wireless network delivery, including spectrum acquisitions, strategic network evolution, research partnerships and direction standards contributions. I was also responsible for managing the network planning and development teams responsible for executing network elements (radio frequency (Rf) and within the core network (Core)) network development/evolution and performance validation.
- 8 Prior to my role as VP Networks at Bell:
 - (a) I was Director of Wireless Strategy for the period July 2005 to July 2008, during which I managed the spectrum planning and technology strategy teams for Bell.
 - (b) I was Director of Wireless Technology Development for the period July 1997 to June 2005, during which I managed Bell Mobility labs.
 - (c) I was Director of Capital Planning for Bell for the period April 1992 to June 1997, during which I managed the capital budget and expenditures required for network construction.
- 9 Prior to joining Bell, I worked for 5 years in the defence industry.
- 10 I hold a Bachelor of Applied Science in Electrical Engineering from Queen's University at Kingston, Canada. I am also a member of the Professional Engineers of Ontario, and Institute of Electrical and Electronics Engineers.

C BELL EXPERIENCE WITH MOCNs

- The ACCC's preliminary view as expressed in the SOPV is that the Telstra-TPG MOCN 'departs from a traditional MOCN agreement in a number of fundamental respects' (at paragraph 4.22). The ACCC also appears to reach the view that overseas experience may be of limited assistance in understanding how the current MOCN will operate, or the effects it may have on the local market (at paragraph 4.21).
- There have been a number of MOCNs implemented in Canada over the period since in or around 2009. During my time working at Bell, it was a participant in three MOCN arrangements in different regions of Canada, discussed below in my statement. I am aware that other wireless operators have also entered MOCNs during this period, including Rogers Inc / Videotron (in relation to Quebec and Ottawa) and Rogers / MTS in Manitoba (which was subsequently a MOCN that Bell took over when we acquired MTS). This is the case even though Canada has mandated roaming where wireless operators are obligated to provide wholesale roaming services to other operators and mobile virtual network operators (**MVNOs**). The reason that

MOCNs have nonetheless proven popular in Canada is that they offer a fundamentally different solution for an operator to a roaming agreement, in that network sharing offers a solution that enables both operators to continue to operate their networks (and develop services and products) independently. By contrast, roaming provides one operator with the ability to make coverage claims based on use of wholesale roaming services supplied by another operator. I discuss this distinction further at paragraph 31 below.

- During my time at Bell, it was a participant in three MOCN arrangements. In relation to these MOCNs, I was personally involved in the following respects:
 - (a) **Bell/Telus MOCN** While I was the Director of Wireless Technology Development I was responsible for establishing the technical direction for the Bell wireless network. It became clear that the path we were on could not provide the economies of scale for both infrastructure and devices, nor could it provide a viable global roaming solution. I led the technology team that identified MOCN as our preferred technical solution and I directed the team as we negotiated an agreement with Telus. The development team under my direction established vendor partnerships and I managed the implementation of the technology. I represented Bell in the negotiation of the operation agreement that facilitates consistent operational expectation between the parties. I also provided technical support to the work that was undertaken by Bell to establish a process to manage potential traffic imbalance.
 - (b) Bell/SaskTel MOCN With respect to the SaskTel MOCN relationship, I was again responsible for identifying the commercial rationale for the MOCN and was responsible for leading the team that resolved the technology issues, which were substantially the same as in relation to the Telus MOCN. I provided technical support to the team that negotiated the terms of the agreement and also led the team that negotiated the operating agreement with SaskTel.
 - established prior to Bell's purchase of Manitoba Telecom Services (MTS). In my role at Bell, after we acquired MTS, I led work on negotiating amendments to the MOCN operating agreement required as part of implementing the deal (and as required by Rogers). I established a transitioning plan to enable seamless access for Bell, Telus, Rogers and MTS wireless customers across the MTS network. I also represented Bell on an operations committee that oversaw network performance and investment plans within the MOCN.
- The table in **Annexure BR-2** to my statement contains a summary of the key commercial features of each of those MOCNs. However, a high level discussion of each MOCN is set out below.

Bell/Telus

- Telus Corporation is the original incumbent telecommunications provider in the Canadian provinces of British Columbia and Alberta. Together with Bell and Rogers Communications, it is one of the three largest wireless operators in Canada.
- In 2009, Bell and Telus entered into a reciprocal MOCN arrangement in relation to 3G and 4G services (which has been subsequently extended to now include 5G). The arrangement is reciprocal in that Telus built out its radio access network (**RAN**) in Western Canada, whilst Bell had built out its RAN in Eastern and Northern Canada.
- Under the Bell/Telus MOCN, the combined RAN network carries traffic for both operators. Effectively, each site within the MOCN has more than twice the capacity than would be the case where RANs were built and operated separately. Gains in speed are also achieved by the RAN operating wider channels on the same radio transmitters as more traffic can be transmitted per unit of time. A MOCN also eliminates the need for the wireless operators to duplicate tower/shelters or the costs of augmenting towers in order to supply services in the region that is subject to the MOCN as well as allowing the operators to consolidate backhaul and to use a single field workforce.
- The higher levels of site traffic at each MOCN site (compared with the traffic that would have been handled at each site if they were operated separately by Bell and Telus) has supported an acceleration in the deployment of fibre backhaul facilities and the deployment of propane/diesel backup at vulnerable site locations. This acceleration reflects the efficiency gains associated with shared costs and resources and allowed each wireless operator to implement backhaul and backup facilities sooner than they would have been able to, on a standalone basis.
- Because Bell and Telus each contributed RAN infrastructure and backhaul in approximately 50% of the country (by population coverage), the commercial arrangements supporting the MOCN arrangement are largely based around reciprocity with each party providing non-discriminatory access to its RAN and associated backhaul wireless infrastructure rather than requiring rules around specific investment or service standards. The approach to wholesale revenue for access to the RAN infrastructure was also on a form of 'peering' basis, where any payments simply reflected the difference in volumes of data or call traffic handled between the parties.
- Like other MOCNs, Bell and Telus each continued to operate their networks independently, including by developing differentiated products and services that competed in the market for wireless services. Each operator also remained responsible for managing the activation, billing and support of their own customers. When a Bell customer was in an area of the RAN deployed by Telus, and used the MOCN network, Telus had no knowledge of that specific customer and

would only see the total aggregated traffic sent to Bell's Core from all of Bell's customers in the Telus RAN.

Bell/SaskTel

- 21 Saskatchewan Telecommunications Holding Corporation (which operates under the brand SaskTel) is the incumbent, government-owned telecoms operator in the province of Saskatchewan.
- In 2009, SaskTel entered into a three-way MOCN arrangement with Bell and Telus in order to support the rollout of a national HSPA+ network. The MOCN involved SaskTel sharing its RAN sites in regional parts of the province of Saskatchewan. Under the arrangement, Bell and Telus both shared use of the SaskTel RAN and backhaul infrastructure in these areas.
- Prior to that time, Bell had relied on a roaming arrangement with SaskTel to service customers in this part of Canada. However, the roaming arrangement had constrained Bell's ability to offer its own independent services to customers in Saskatchewan, including to national customers who were looking for a single network operator (e.g. banks with a national footprint). While roaming enabled Bell to provide coverage to these customers, the services we supplied were constrained by the technical features of the service supplied by our roaming partner (SaskTel). This had previously meant that, prior to the MOCN with SaskTel, a number of Bell's national accounts in Saskatchewan had been serviced by SaskTel and this had introduced a number of issues in the sales, activation, billing and customer support processes.
- As discussed further in paragraph 29(c) below, fees were paid by Bell to SaskTel for use of the shared RAN infrastructure. SaskTel also benefitted from Bell's technical resources and support in relation to operation of the shared RAN infrastructure. It was not commercially viable for Bell to have built a network in regional Saskatchewan, given the low population density and associated revenues. Even if Bell had tried to build out its own infrastructure, given the extremely high cost of building out infrastructure in regional Saskatchewan, we certainly would not have been in a position to provide services to customers in that area at a lower price than was possible based on the negotiated cost of access to the MOCN infrastructure available to Bell under the MOCN agreement.

Bell/Rogers

- 25 In 2017, Bell acquired MTS.
- Since 2009, MTS and Rogers had been operating a MOCN in regional Manitoba, and Bell therefore took on this MOCN arrangement when it acquired MTS in 2017. The MOCN involved sharing infrastructure owned by both MTS and Rogers in regional Manitoba. While Bell came to participate in this MOCN by acquisition, based on my experience as VP Networks at the time of

the MTS deal, I understood that the original rationale was similar to the Bell/SaskTel deal – i.e. to facilitate shared use by Rogers of the MTS backhaul and RAN operated by MTS in regional Manitoba.

- Post-acquisition, this MOCN agreement was modified to include the Bell public land mobile network ID (**PLMN**) across the full provincial footprint, and in addition the Telus PLMN in rural Manitoba. Having different PLMNs broadcasting across the shared infrastructure meant that Bell customer devices operated as they do on the areas of RAN owned directly by Bell and obtained seamless access to national Bell services.
- As will be apparent from the discussion above (and the table at **Annexure BR-2**), based on my experience with the three MOCNs that Bell has participated in, I do not consider that there is any standard or 'traditional' set of commercial terms that govern a MOCN arrangement. In each case where I was involved in negotiating or operating a MOCN for Bell, a MOCN was always negotiated and tailored in order to address and overcome specific network limitations of one or both parties. In the case of the Bell deal with Telus, this involved a largely equivalent (50/50) network sharing deal, whereas in both the SaskTel and MTS/Rogers arrangements, the reason for negotiating a MOCN was to enable Bell (and Rogers, in the case of MTS) to extend its network into specific regional areas of Canada. In the Bell/SaskTel and Bell/Rogers/MTS cases the outcome was mutually beneficial in that the regional operator gained access to the national footprint and technical infrastructure and device acquisition support.

D COMMON MOCN ATTRIBUTES

- The MOCN features identified in the SOPV at paragraph 4.22 all relate to the commercial terms governing the relationship (i.e. whether it is a joint venture, how capex is funded and the basis upon which fees are paid). I do not express a view on the importance or relevance of these matters to the ACCC's analysis. However, I do not consider that they are common or typical to all MOCNs and I make the following general comments about how these varied in the different Bell MOCN relationships:
 - (a) Commercial structure. A joint venture structure was considered for the Bell/Telus MOCN given its reciprocal nature. Ultimately, none of these MOCN arrangements were established under a joint venture structure.
 - (b) Investment model. The model used for investment by wireless operators in infrastructure shared under the MOCN varied depending on the resources and capability of each party. A shared investment model was used for the Bell/Telus and Bell/Rogers MOCNs. However, for Bell/SaskTel, investment in the RAN is solely undertaken by SaskTel.

- (c) Financial arrangements (including fees). Financial arrangements also differ across the different MOCNs. In the case of Bell/SaskTel, fees are paid by Bell to SaskTel (on a per-GB basis) for use of the RAN infrastructure, while compensation is provided for spectrum that Bell contributes. Under the Bell/Telus MOCN and Bell/Rogers MOCN, given that there is a degree of equivalence in the network coverage being contributed by each party, 'true-up' payments are made between the wireless operators that reflect differences in usage from year to year. Wholesale fees are paid on a usage basis in remote areas under both the Bell/Telus and Bell MTS/Rogers MOCN.
- In my experience with each of Bell's MOCN arrangements, the features of each MOCN that proved important were not the commercial structures, but the way in which in each case Bell and its MOCN partners shared certain central technical or network characteristics. Specifically, MOCNs enabled Bell to obtain the coverage and capital cost benefits of using another operator's RAN (and potentially backhaul or spectrum), whilst maintaining independent control of our own services and products. Essentially, each MOCN offered Bell (and our partners) an ability to extend our networks, without being required to directly fund duplicate sites and infrastructure.
- I see the following common technical features as important and common to all three of the MOCNs entered into by Bell:
 - (a) RAN sites (and backhaul) are shared, but core networks remain separate and independent.

Under each of Bell's MOCN arrangements, each party is provided with access to the shared RAN infrastructure (and backhaul) on a non-discriminatory basis, while maintaining independent operation of their own core networks.

This meant that, from a customer's perspective, it remained Bell's network within the MOCN area – even if a customer is connected to a site of one of the MOCN parties. RAN sites in a MOCN area broadcast multiple PLMNs, so that each customer can recognise the Bell network as distinct from SaskTel, Telus or Rogers, respectively. From the perspective of a Bell customer in regional Saskatchewan for example, this means that a Bell customer's device will appear to be on Bell's network even if it is connected to a RAN site shared with SaskTel. SaskTel's customers connected to the same shared RAN site will appear to be connected to SaskTel's network. This is important for Bell's brand perception, showing customers that Bell has the coverage and does not have to depend on another MNO's network to provide that coverage.

Under a roaming arrangement, a RAN site will only broadcast the PLMN of the operator that is the roaming provider. This would mean, for example, that if the Bell/SaskTel

MOCN was a roaming arrangement, a Bell customer would see that they have roamed onto the SaskTel network when they use their device in regional Saskatchewan. Even if, at the device level, an operator can configure the devices in the roaming region to make the screen appear to the customer that they are on some extended coverage but the fact remains they are registered on the host network and that the host core sits between the customers' device and the home core network – which means that service quality, speed and other features of the service are defined and limited by what is permitted or handled by the roaming provider's network.

(b) Bell retains control over the technical features of the products and services it supplies, including in the MOCN area.

In a roaming arrangement, data and calls are processed through the access provider's core network before they are passed to the access seeker's core network. This means that the roaming party's capacity to control or define the technical features of services it provides is limited to the features that are provided by (and therefore can be processed by) the network that it roams on to. In effect, roaming involves the resale of services defined by the roaming provider.

As I explain further below, at paragraphs 32 to 36, this is one of the most important technical characteristics of a MOCN because the parties to the agreement each control their own 'end to end' service and product features. For example, while both Telus and Bell both have the same network coverage under their MOCN, they continue to compete strongly around product innovation and service quality (i.e. minimising jitter, latency etc) – because these are defined, developed and implemented within their core networks. These service features are able to be controlled under a MOCN because of the independent core network that each MNO retains, which facilitates product and service differentiation. While I was VP Networks, an important part of my role was leading this kind of product innovation and development and our ability to do this was not meaningfully limited or constrained by the reliance on use of the Telus RAN under our MOCN in respect of 50% of the Canadian population.

(c) MOCNs deliver lower capital costs – allowing improved coverage for lower cost and facilitating earlier and faster upgrades in technology.

A consistent theme in each of Bell's MOCNs has been the significant capital savings associated with active network sharing. From my experience, I understood this to be a core commercial driver for most, if not all, MOCN relationships. In many cases (such as Bell's MOCNs with Sasktel and Rogers) this enabled an operator to extend their network into regional areas where they would not otherwise have found it economic to directly invest in separate and duplicate infrastructure. In other cases, such as our MOCN with

Telus, our MOCN helped Bell to use capital to invest more quickly in rolling out a national HSPA+ (i.e. 4G) network.

E SERVICE DIFFERENTIATION AND COMPETITION WITH MOCN ARRANGEMENTS

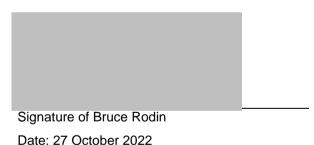
- My experience has been that each of these MOCN arrangements have greatly enhanced Bell's ability to compete in areas where it wouldn't be economic to deploy its own RAN infrastructure. In these areas, Bell was able to compete using the MOCN as an extension of its own network, offering its own differentiated services.
- In my experience, particularly in 4G and 5G networks, service differentiation occurs in the core network through optimising the path that data or calls travel to often seek to shave milli-seconds off of response time (this is referred to as Transmission Control Protocol (**TCP**) optimisation). Optimising the way that packets are managed will help to improve speed, as well as the quality of a customer's service experience, including things such as latency and jitter. Bell's consistent work on these features of its services have supported Bell in making "Fastest Network" claims against other operators, including parties to the MOCN.
- The introduction of LTE advanced and now 5G services have made peak speed and latency even more important as consumers increase the use of data-intensive services such as streaming. For example, wide area drone control requires extremely low levels of latency (speed of the response to network messages) and jitter (the consistency of the timing of those messages). Work in this area had just started as I was leaving Bell although they had not released a specific product up to that point.
- I understand the SOPV to be implying that the level of differentiation or competition that can be delivered through a MOCN is materially less than could be achieved through an operator's use of their own network infrastructure. In that sense, the ACCC appears to find that TPG will be substantially less able to compete on various attributes if it uses Telstra's RAN through a MOCN, rather than having its own sites and infrastructure. In this regard, I understand from Part 3 of the SOPV, that the ACCC sees the following elements of competition as "driven by ongoing investments in infrastructure" (paragraph 3.7 and again at paragraphs 5.41 and 5.42):
 - (a) geographic coverage;
 - (b) network quality;
 - (c) price;
 - (d) plan inclusions (and bundles); and
 - (e) speeds attainable by customers.

In my experience, a MOCN allows a wireless operator to continue to compete independently on all of the above, except coverage. Based on my involvement in the three MOCN arrangements above, the capacity of a MOCN to enable parties to develop and innovate and to differentiate their network and services (including competing around quality parameters such as speed, latency, jitter etc) is a key reason that they have been popular in Canada – and have been adopted instead of roaming. To the extent that it avoids capex being spent on duplicative infrastructure, it allows investment in increased densification, services and other elements of competition. The experience of Bell during my time as VP Networks, and after over a decade of MOCN relationships, has been continued and strong competition, rivalry and innovation by wireless operators, including those that are MOCN partners.

G EXIT FROM A MOCN

When negotiating a MOCN arrangement, Bell was conscious of the need to have an effective way to exit the relationship without significantly impairing its future competitiveness. Bell would not have entered a MOCN relationship if doing so made Bell so reliant upon a party to the MOCN agreement that exiting the arrangement, if it didn't work out, would seriously set Bell back or mean Bell was not able to secure an alternative solution if needed. This is a view that I took in my role as VP Networks at Bell when negotiating the terms of the Bell MOCNs with Telus and SaskTel. Amongst other things, Bell ensured that it continued to hold rights to spectrum in areas where we did not operate the RAN. Although Bell held a reasonable expectation that a MOCN agreement would be extended into the future, we also needed to consider the scenario where Bell RAN would need to be established in areas provided by the other party to the MOCN agreement.

Signed by Bruce Rodin



Annexure BR-1 – Letter of engagement

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Partner Contact Simon Muys James Johnson T

Our ref

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26 October 2022

By email:

Mr Bruce Rodin

Ontario L3P-4R7

Private and confidential

Dear Mr Rodin

Canada

Letter of instructions – Application to the Australian Competition and Consumer Commission for Merger Authorisation

- 1 Gilbert + Tobin acts for Telstra Corporation Limited (**Telstra**).
- We are instructed to seek your expert opinion, in the form of a written statement, in connection with the Application to the Australian Competition and Consumer Commission (ACCC) for Merger Authorisation (Authorisation Application).
- This letter records the terms of your retainer and provides you with some background and highlevel information relevant to your retainer.

Background

- 4 On 21 February 2022, Telstra and TPG Telecom Limited (**TPG**) entered into three interrelated commercial agreements, being:
 - a. The MOCN Service Agreement dated 17 February 2022;
 - b. Spectrum Authorisation Agreement (MOCN Area) dated 17 February 2022; and
 - c. Mobile Site Transition Agreement dated 17 February 2022.

(the **Proposed Transaction**)

- The Proposed Transaction provides for a Multi-Operator Core Network (**MOCN**) commercial arrangement, pursuant to which Telstra will supply TPG with MOCN 4G and 5G services within a defined coverage zone across regional and fringe urban areas. The defined coverage area is a ring covering 81.4% 98.8% of the Australian population, or approximately 1.5 million square kilometres (**17% Regional Coverage Zone**).
- To support the shared use of the MOCN in the 17% Regional Coverage Zone, TPG will authorise certain spectrum it currently owns and is unutilised or underutilised to Telstra in the 17% Regional Coverage Zone, to be pooled with Telstra's spectrum and made available to both parties. Telstra will also be authorised to use certain spectrum beyond the 17% Regional



Coverage Zone (i.e. in areas beyond 98.8% of the Australian population). The initial term of the MOCN Agreement is 10 years and TPG has two options to extend the agreement by 5 years.

- Pursuant to s 68(1) of the *Radiocommunications Act 1992* (Cth), TPG's grant of authorisation to Telstra to use its spectrum is deemed to be an acquisition within the meaning of s 50 of the *Competition and Consumer Act 2010* (Cth) (**CCA**) and capable of merger authorisation under Part VII.
- Telstra and TPG have sought ACCC authorisation for aspects of the Proposed Transaction deemed to enliven the operation of s 50 and Part VII of the CCA.
- 9 The ACCC may grant authorisation if it is satisfied that either:
 - (a) the Proposed Transaction would not have the effect, or would not be likely to have the effect, of substantially lessening competition; or
 - (b) the Proposed Transaction would result, or be likely to result, in a benefit to the public, and that benefit would outweigh the detriment to the public that would result, or be likely to result, from the Proposed Transaction.
- On 30 September 2022, the ACCC published its Statement of Preliminary Views (**SOPV**) in connection with the Authorisation Application.
- The ACCC, amongst other things, is now seeking submissions on the relevance of overseas network sharing arrangements, and whether these arrangements are comparable with the Proposed Transaction.¹ A copy of the SOPV has been provided to you, and you may rely upon it in preparing your statement.

Instructions

- 12 We request that you provide a signed expert witness statement setting out:
 - (a) Your qualifications and experience, including in respect of the assessment, negotiation and implementation of MOCN arrangements and associated commercial agreements.
 - (b) Based on your experience:
 - (i) any response you have to the views expressed in the SOPV, including at paragraphs 4.20 4.23;
 - (ii) information or experience that you consider may assist the ACCC in response to Question 3 on page 20 of the SOPV; and
 - (iii) any other comments regarding the experience of MOCNs in Canada in respect of competition between wireless operators, including as compared to other types of wholesale access.

¹ ACCC, Statement of Preliminary Views: Telstra Corporation Limited and TPG Telecom Limited Application for merger authorisation MA1000021, 30 September 2022, paragraphs [4.20] - [4.23]: https://www.accc.gov.au/system/files/public-registers/documents/ACCC%E2%80%99s%20Statement%20of%20Preliminary%20Views%20-%2030.09.22%20-%20PR%20-%20MA1000021%20Telstra%20TPG.pdf



Your role as an independent expert

- We ask that you prepare your report in accordance with the requirements of the Federal Court's Harmonised Expert Witness Code of Conduct (**Code**). A copy of the Code is enclosed at Annexure A to this letter.
- As an independent expert, it is also important that you are free from any actual or possible conflict of interest. This includes ensuring that you have no connection with any other party which would prevent you from preparing your analysis in an objective and independent manner.
- We confirm our understanding that you have no conflicts of interest in this matter. Please inform us immediately if you do become aware of a conflict or potential conflict.

Confidentiality

Yours faithfully

- You must not disclose or discuss any of our correspondence or instructions, or any of your work products, with any third parties. This duty of confidentiality will continue beyond the conclusion of your instructions.
- 17 Please ensure that you keep all documents (including electronic documents) relating to these instructions confidential and separate from your other files.
- All communications in relation to this matter, whether verbal or written, should be directed to Gilbert + Tobin.

We are grateful for your assistance in acting as an expert in relation to this matter.

Simon Muys
Partner



ANNEXURE A

AUSTRALIAN FEDERAL COURT HARMONISED EXPERT WITNESS CODE OF CONDUCT

Application of Code

- 19 This Code of Conduct applies to any expert witness engaged or appointed:
 - (a) to provide an expert's report for use as evidence in proceedings or proposed proceedings; or
 - (b) to give opinion evidence in proceedings or proposed proceedings.

General duties to the Court

An expert witness is not an advocate for a party and has a paramount duty, overriding any duty to the party to the proceedings or other person retaining the expert witness, to assist the Court impartially on matters relevant to the area of expertise of the witness.

Content of report

- 21 Every report prepared by an expert witness for use in Court shall clearly state the opinion or opinions of the expert and shall state, specify or provide:
 - (a) the name and address of the expert;
 - (b) an acknowledgment that the expert has read this code and agrees to be bound by it;
 - (c) the qualifications of the expert to prepare the report;
 - (d) the assumptions and material facts on which each opinion expressed in the report is based [a letter of instructions may be annexed];
 - (e) the reasons for and any literature or other materials utilised in support of such opinion;
 - (f) (if applicable) that a particular question, issue or matter falls outside the expert's field of expertise;
 - (g) any examinations, tests or other investigations on which the expert has relied, identifying the person who carried them out and that person's qualifications;
 - (h) the extent to which any opinion which the expert has expressed involves the acceptance of another person's opinion, the identification of that other person and the opinion expressed by that other person;



- a declaration that the expert has made all the inquiries which the expert believes are
 desirable and appropriate (save for any matters identified explicitly in the report), and that
 no matters of significance which the expert regards as relevant have, to the knowledge of
 the expert, been withheld from the Court;
- (j) any qualifications on an opinion expressed in the report without which the report is or may be incomplete or inaccurate;
- (k) whether any opinion expressed in the report is not a concluded opinion because of insufficient research or insufficient data or for any other reason; and
- (I) where the report is lengthy or complex, a brief summary of the report at the beginning of the report.

Supplementary report following change of opinion

- Where an expert witness has provided to a party (or that party's legal representative) a report for use in Court, and the expert thereafter changes his or her opinion on a material matter, the expert shall forthwith provide to the party (or that party's legal representative) a supplementary report which shall state, specify or provide the information referred to in paragraphs (a), (d), (e), (g), (h), (i), (j), (k) and (l) of clause 3 of this code and, if applicable, paragraph (f) of that clause.
- In any subsequent report (whether prepared in accordance with clause 4 or not) the expert may refer to material contained in the earlier report without repeating it.

Duty to comply with the Court's directions

- 24 If directed to do so by the Court, an expert witness shall:
 - (a) confer with any other expert witness;
 - (b) provide the Court with a joint report specifying (as the case requires) matters agreed and matters not agreed and the reasons for the experts not agreeing; and
 - (c) abide in a timely way by any direction of the Court.

Conference of Experts

- 25 Each expert witness shall:
 - (a) exercise his or her independent judgment in relation to every conference in which the expert participates pursuant to a direction of the Court and in relation to each report thereafter provided, and shall not act on any instruction or request to withhold or avoid agreement; and
 - (b) endeavour to reach agreement with the other expert witness (or witnesses) on any issue in dispute between them, or failing agreement, endeavour to identify and clarify the basis of disagreement on the issues which are in dispute.

Annexure BR-2: Key features of Bell MOCN arrangements

	Bell/Telus	Bell/Rogers	Bell/SaskTel (and Telus)	
Details of the MOCN a	Details of the MOCN arrangement			
When was the MOCN	2009	MTS and Rogers entered into a shared	2009	
established?		3.5 HSPA wireless network building		
		agreement in July 2009. Rogers and		
		MTS also had a roaming agreement,		
		where MTS customers could roam on		
		Rogers' fastest mobile network.		
		Wireless network sharing arrangement		
		extended June 2013.		
Mobile networks	3G, 4G and 5G	3.5G / 4G HSPA+, 4G LTE, 5G	HSPA+,4G LTE, planned 5G	
	The two companies launched 5G in			
	early June 2020.			
Area/region covered	The two companies share their 3G, 4G	Regional Manitoba	Regional Saskatchewan	
by MOCN	and 5G RANs in different parts of			
	Canada. Telus builds cell sites in British			
	Columbia, Alberta, Winnipeg in			
	Manitoba, and Ottawa in Ontario, and in			
	Montréal, Québec City and the Gaspé			
	Peninsula in Québec.			
	Bell builds out its network from the			
	eastern part of Canada to the midwest			

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	except for Saskatchewan. Bell also has some cell sites in northern British Columbia. As well as the Northern Territories.		
Who owns the tower infrastructure?	See above, but generally, Telus owns the infrastructure in western Canada and Bell owns the infrastructure in eastern and northern Canada.	Originally MTS/Rogers, now Bell/Rogers	SaskTel owns the RAN that it shares with both Bell and Telus.
What was the spectrum arrangement?	Spectrum "owned" by the non operating company was subordinated to the operating entity for the duration of the 20 year agreement.	Subordinate spectrum licences held by Bell/MTS and Rogers	Bell contributes spectrum (in exchange for compensation)
Rationale for the MOCN	Given the need for wide area coverage it made sense for each operator to build in their respective rural areas and that urban markets were best served by one access network that provided non-discriminatory services to both networks. Bell Telus was designed to optimize a generally balanced spectrum and incumbent position.	Bell was not a party to the original MOCN arrangement – it inherited this when is bought MTS. However Bell understood that the original rationale was similar to the Bell / SaskTel MOCN – i.e. to facilitate shared use of MTS access network in regional Manitoba (and share costs of this regional network while allowing each party to use its own core network).	Bell, previously on the legacy CDMA network, had a roaming arrangement with SaskTel. National accounts in Saskatchewan were serviced by SaskTel and this introduced a number of issues in the sales, activation, billing and customer support processes. National accounts wanted a single point of operator contact., Bell negotiated for a MOCN agreement as it provided Bell with the ability to resolve these

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			operational issues and to design its own
			network and customized services
			(through a separate core).
			Bell SaskTel MOCN was established
			during the period of a significant network
			transition from CDMA to HSPA/LTE
			technology and Bell provided technical
			resources and support to enable
			SaskTel to complete the transition in a
			timely manner. SaskTel customers have
			access to the largest footprint in Canada
			and continue to leverage Bell technical
			expertise.
			Note that SaskTel has elected to not
			deploy MOCN connectivity to the
			national footprint due to cost.
'Traditional' characteri	istics of the MOCN (see SOPV at [4.22])		
Joint venture?	No – JV was briefly considered but Bell	No	No
	felt that aggressive KPIs could drive the		
	design and that enhanced Network		
	Operation Centre dialog could efficiently		
	manage the day to day operation. Given		

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	the geographic split there is no overlap in field maintenance.		
Shared investment model	Access network responsibility was equally on a 50/50 split based on population covered. This would likely result in equal network investment and a balanced traffic profile. A true-up mechanism was established to account for minor traffic imbalance.	MTS and Rogers' network sharing arrangement in 2009 resulted in the joint deployment of a 4G HSPA+ wireless network covering 97% of Manitobans. Rogers and Bell/MTS shared the costs of deploying and operating LTE technology in Manitoba, under the 2013 LTE network sharing arrangement.	RAN investment is solely undertaken by SaskTel
Fee structure (including on usage basis)	As mentioned above the equal split of population covered drove a similar access network investment profile while revenue is completely outside of the agreement. Traffic records and rating are cut in the respective Core networks and the other party has no knowledge of revenue. Operators can see their own customers traffic and the see the aggregate traffic generated by the other party in their own RAN.	RAN operating responsibility is shared and reflects relative traffic volumes generated by each party. True up mechanism exists to account for disparity. Traffic generated by Telus on the rural network in Manitoba, for the purposes of settlement with Bell-Rogers agreement is considered to be Bell traffic.	Fees are paid by Bell for usage (on a per-GB basis) and compensation is provided for spectrum that Bell contributes.

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Competition			
Level of competition between MOCN participants	Critical to note that this sharing is for radio access network only and that Core networks were separate. Separate core networks maintains the ability of each MOCN participant to compete vigorously on various dimensions of service quality – e.g. latency and jitter – as well as on price. Protocols are in place to ensure that there is no sharing of information that may be competitively sensitive. Teams working on the MOCN never discuss marketing issues, new service details, devices and issues related to acquisition	MOCN network parties continue to extend national services seamlessly into this region.	 The MOCN arrangement has greatly enhanced Bell's ability to compete with SaskTel (compared to the previous roaming arrangement). As mentioned previously the MOCN configuration has enabled Bell to efficiently service national accounts and sell Bell services locally under the Bell brand. August 2013: TELUS and SaskTel have expanded LTE (Long Term Evolution Network) in the region.
State of competition following the MOCN being established	of spectrum. Since network launch competition has been aggressive. The reality is that with in the MOCN footprint coverage is no longer a competitive factor between Bell and Telus. Rate plans, network speed and features are competitive dimensions in the marketplace.	National and regional "Best" and "Fastest" claims require optimization in all parts of the network. This work is extended into the Bell/Rogers MOCN operating area.	National and regional 'Best" and "Fastest" network claims require optimization in all parts of the network. This work is extended into the Bell/Sasktel MOCN operating area.

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With the introduction of LTE advanced		
and now 5G services the performance		
of the channel both in terms of peak		
speed and latency have become		
increasingly important as new		
application have been developed. An		
example is wide area drone control		
where latency (speed of the response to		
network messages) and jitter (the		
consistency of the timing of those		
messages) is of utmost importance.		
Demonstrating high levels of network		
performance requires optimization of the		
channel through the RAN and network		
Core. Service differentiation occurs in		
the Core network by creating an		
architecture that is design to shave milli-		
seconds off of response time and		
introducing platforms such as TCP		
optimization that manage parameter		
such as packet and buffer size. These		
techniques are required to deliver the		
performance expectations of advancing		
service creation environments. These		

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same techniques are instrumental in		
establishing Bell's Fastest Network		
claims against the other parties to the		
MOCN and other wireless network		
operators.		