

Telecommunications Carriers' Forum

TCF Paper – Recommendations for Final Agreement at the LLU Working Party Meeting on 14/15 May

18 May 2007

The recommendations in this paper have been unanimously approved by all voting members of the TCF LLU Lines and Co-location Working Parties (CallPlus, ihug/Vodafone, Orcon, Telecom, TelstraClear and Vector Communications) with the following caveats:

Not all parties have agreed with the recommendation in paragraph (gg) of the Co-location design section of the paper (page 17), which relates to only equipment used exclusively for LLU being able to be co-located on Telecom premises under the Co-location STD. Some parties have indicated that they will make submissions on this issue. Parties have also indicated they will make submissions on the possibility to place firm orders prior to STD release (via a letter of intent for instance) and the definition of qualifying "technical and operation reasons" to enable space to be ordered for Future Use (under recommendation (e) on page 12) and on the SLA for co-location build for a new row (which will determine the potential timing implications of paragraph (h) on page 13).

TCF Paper – Recommendations for Final Agreement at the LLU and Co-location Working Party Meeting 14/15 May 2007

Date: 18 May 2007

Purpose:

1. To seek final unanimous agreement of the LLU and Co-location Working Party (**Working Party**) at the meeting on 14/15 May 2007 for the following non-price supply terms to be included in Telecom's standard terms proposals (**STPs**) for unbundled copper local loop (**LLU**) and unbundled copper local loop network co-location (**Co-location**), as appropriate.
2. This paper has been prepared by Telecom on behalf of the TCF LLU and Co-location working parties.

Recommendation

3. It is recommended that the TCF Working Party:
 - Unanimously agrees (subject to the TCF Board's approval) to the following recommendations, from previous discussions and papers presented to Working Party, being included as non-price terms of supply in Telecom's STPs, as applicable, at the Working Party meeting on 14/15 May 2007;
 - Notes that the recommendations set out in this Cover Paper will not be the exact drafting that will be included in Telecom's STPs, but Telecom will make every endeavour to ensure that its drafting is entirely consistent with the principles set out in these recommendations; and
 - Unanimously recommends to the TCF Board that the recommendations are accepted and become the unanimously agreed non-price terms of supply as referred to in the Commerce Commission notices for LLU and Co-location.

Background

4. The Commerce Commission (**CC**) issued two notices to Telecom calling for its STP in relation to LLU and also in relation to Co-location, which are to be delivered to the CC on 12 June 2007.

5. The CC notice for LLU provides as follows:

The Commission makes the following additional requirements under section 30F(2) of the Act. The Proposal:

- a. must include all non-price terms of supply that have been unanimously agreed to by the relevant Telecommunications Carriers Forum ('TCF') working parties at any meetings held prior to receipt by the Commission of the Proposal; and..."

6. The CC notice for Co-location provides as follows:

The Commission makes the following additional requirements under section 30F(2) of the Act. The Proposal:

- a. must include all non-price terms of supply that have been unanimously agreed to by the relevant Telecommunications Carriers Forum ('TCF') working parties at any meetings held prior to receipt by the Commission of the Proposal; and..."

Approach

Recommendations set out in Cover Paper for Agreement

7. Telecom sets out in this paper (**Cover Paper**) a number of recommendations in respect of LLU and Co-location, based on previous discussions and papers presented to the Working Party, for unanimous agreement by the Working Party.
8. Any agreement is subject to ratification by the TCF Board.
9. Where any recommendation is unanimously agreed by the Working Party at the meetings on 14/15 May 2007 it will be included as a term in the relevant STP as required under the CC's notices on 12 June 2007.
10. Telecom notes that where the term "Telecom" is used it generally refers to Telecom as the "Access Provider" of the relevant service under the Telecommunications Act.

Working Party Papers Attached

11. Attached to this Cover Paper are the relevant papers previously presented to the Working Party (**TCF Papers**). These papers are attached to provide context and background.
12. Telecom has noted where papers have been updated (e.g. with the latest TCF input). Changes are not shown as being marked up.
13. All papers have been standardised to include:
 - a. Paragraph numbers;
 - b. Consistent terminology (such as "Access Provider" to "Telecom")
14. For the avoidance of doubt, where points from the relevant TCF Papers are *not* included as a recommendation in this Cover Paper, they are *not* unanimously agreed by the Working Party. Telecom will not necessarily include in the STP any other matters set out in the TCF Papers that are not specifically set out as recommendations in this Cover Paper.
15. The recommendations in this Cover Paper are set out in the following order:
 - (a) Operations Manual Change Process
 - (b) Tenure
 - (c) Cabinetisation Notice Period
 - (d) Co-location Design
 - (e) Prioritisation

- (f) Implementation Plan
- (g) Dispute Resolution
- (h) Trial Objectives and Approach
- (i) Service Level Agreement
- (j) Bulk Transfer Definitions Release
- (k) Bulk Request Prioritisation
- (l) Customer Authorisation Release
- (m) Clarification of Fault Terms
- (n) Special Investigations
- (o) Required Fault Status
- (p) Exchange Audits Timetable

Recommendation 1 – Operations Manual Change Mechanism

Paper: TCF Discussion Paper – LLU general dispute resolution mechanism straw man

Date: 10 May 2007

STP: To be included in Telecom’s LLU and Co-location STPs

Note: This paper has been updated since it was presented to the Working Party:

- Added - Eligibility criteria for the independent expert (to be consistent with the Dispute Resolution Process)
- Added - The expert can obtain independent legal advice (to be consistent with the Dispute Resolution Process)

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

- (a) Access Seekers include only those currently taking LLU or Co-location services, as appropriate under the relevant STD.
- (b) Access Seekers’ proposed amendments must be provided to Telecom by written notice for the purposes of consultation. Telecom will have 10 working days from the date of receipt of the notice to provide its comments on the proposed amendments to the Access Seeker. Following receipt of Telecom’s comments the Access Seeker may either proceed with the proposed amendments or withdraw them. If the Access Seeker chooses to proceed Telecom must notify the proposed amendments, in accordance with the procedure below, within a further 5 working days of receipt of written notice from the Access Seeker of its decision to proceed.
- (c) If an Access Seeker has consulted Telecom and decided to proceed with proposed amendments or if Telecom proposes its own amendments, Telecom is to notify Access Seekers by email and by notice on its website. In the case of Telecom or Access Seeker proposed amendments this is to take place within 5 working days of Telecom’s decision to propose an amendment, and within 5 working days of receipt of written notice from the Access Seeker of its decision to proceed, respectively.
- (d) Once a proposed amendment is notified Access Seekers and Telecom have 10 working days from the date of the notice to object. If:
 - a. no written objection is received by Telecom within that time-frame, and
 - b. Telecom does not itself object to the amendment by notifying Access Seekers by email and by notice on its website within that time-frame,

the proposed amendment is deemed accepted and Telecom is to provide to all Access Seekers an updated Operations Manual containing the amendment along with a notice of the date the change takes effect.

- (e) If a written objection is received or if Telecom notifies an objection, Telecom and the Access Seekers have a further 10 working days from the date the latest objection is received or is notified by Telecom to negotiate and agree the proposed amendment. Negotiation is to take place through the TCF. If, despite the objection, the amendment is agreed by at least 75% of all Access Seekers taking the service and Telecom voting on the issue (the 75% must include Telecom) the proposed amendment is deemed accepted and Telecom is to provide to all Access Seekers taking the service with an updated Operations Manual containing the amendment along with a notice of the date the change takes effect.
- (f) If not agreed by 75% of all Access Seekers taking the service and Telecom voting on the issue the proposed amendment may be referred, at the request of the party who has proposed the amendment, to an independent decision maker agreed by all of the Access Seekers who have indicated that they wish to be a party to the dispute and Telecom, acting as an expert (expert to be relevant to the area under consideration) rather than an Arbitrator under the Arbitration Act, to make a binding decision (subject to the CC's powers to review, clarify or reconsider a standard terms determination under the Telecommunications Act).
- (g) To be eligible for appointment, the expert must be independent and impartial, must be experienced in the relevant area of telecommunications and will preferably be experienced in dispute resolution. Unless Telecom and the Access Seekers who have indicated that they wish to be a party to the dispute agree, he or she must not have performed any duties, whether as an employee, consultant or contractor, for any of the parties to the dispute or any related party during a 6-month period prior to the date the notice of dispute was given.
- (h) The independent expert may seek independent legal advice regarding the appropriate procedures for resolution of the dispute.
- (i) The independent expert should seek to make decisions that are timely, practicable, efficient, and take into account the Telecommunications Act, in particular the relevant standard access principles under the Telecommunications Act.
- (j) If Telecom and Access Seekers who have indicated that they wish to be a party to the dispute cannot agree on an independent decision maker to act as expert the Chair of the TCF will appoint someone. If the amendment is accepted by the expert, the expert's costs are to be met by the party or parties objecting to the amendment. If the amendment is rejected by the expert the expert's costs are to be met by the party proposing the amendment.
- (k) If either Telecom or any of the Access Seekers who have indicated that wish to be a party to the dispute disagrees with the expert's decision on a proposed amendment they may ask the CC to exercise its powers to review, clarify or reconsider a determination under the Telecommunications Act so as to either allow or disallow the amendment. In that case if the expert has accepted the amendment, and application is made to the CC (on notice to the other parties) within 5 working days of receipt of the expert's decision the amendment will

not take effect until the CC has either declined to exercise its powers, or has completed the exercise of its powers (in which case the expert's decision will take effect in accordance with the CC's decision).

- (l) In addition to any 'ad hoc' changes proposed through the process above Telecom is to biannually review the Operations Manual commencing on the 2nd anniversary of the date of delivery of the STD (or earlier if requested by an Access Seeker and an earlier review is agreed by Telecom) and to propose any changes deemed by Telecom to be necessary as a result of the review, using the process above.
- (m) For the avoidance of doubt nothing in this mechanism is intended to deprive the parties of the ability to apply to the CC to exercise any of its powers under the Act.

Recommendation 2 – Tenure

Paper: Tenure

Date: 10 May 2007

STP: To be included in Telecom's Co-location STP

Note: This paper has been updated since it was presented to the Working Party.

- Telecom has added a clarification around network expansion.

Recommendations for unanimous agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

- (a) Tenure will be by way of a licence from Telecom.
- (b) The Access Seeker's rights at any site are subject to Telecom continuing to have a legal interest in the site. If Telecom's legal interest ceases it shall give as much notice as practicable to the Access Seeker (which in practice is likely to be the same notice period that Telecom has) in the circumstances. This clause's application is limited to situations where Telecom's legal interest is affected by events outside its control (e.g. the lease expires and is not reasonably able to be renewed, including on reasonable commercial terms, a change of legislation or action under the Public Works Act), but excluding where any decision not to renew a lease or retain a legal interest is because Telecom's own requirements mean that it no longer requires a site, in which case paragraph (f)(i) will apply.
- (c) The term is described as follows – "that period from the Commencement Date until the service ceases to be a designated service under the Telecommunications Act 2001".
- (d) The Access Seeker has a right to terminate at any time upon 6 months notice or by agreement (reinstatement will apply).
- (e) Where termination is instigated by Telecom (excluding as a direct result of breach by the Access Seeker) reinstatement will not apply.
- (f) Telecom has a right to terminate:
 - (i) If Telecom's own requirements (e.g. cabinetisation) mean that it no longer requires the site. Termination will be subject to a notice period equivalent to that agreed for cabinetisation notice.
 - (ii) Where a licensor has standard rights of termination i.e. failure to pay, liquidation/receivership, material breach provided in case of non payment or breach, notice has been given and the event has not been remedied within 20 days.
 - (iii) Force Majeure/Destruction or Damage to Site renders it unusable and Telecom unable or does not intend to repair.

- (g) In the case of a breach which is not material or is capable of remedy, then Telecom has the ability to suspend the service (i.e. operation of the equipment) until the breach is remedied subject to the Access Seeker being given notice and the breach has not been remedied within 14 days.

- (h) Should its own core network or facility infrastructure expansion (e.g. HVAC, power or building alterations) require it, Telecom has the right to relocate the Access Seeker at Telecom's cost and providing it does not materially impact the operation or performance of the Licensee's equipment. For clarity, Telecom's core network or facility infrastructure expansion will only require re-location of Access Seekers' equipment if the technical requirements of the expansion equipment are such that it must be located in a position that is wholly or partially occupied by equipment belonging to the Access Seeker, or in a position that would have a negative operational impact on the Access Seeker's equipment.

Recommendation 3 – Cabinetisation Notice Period

Paper: Discussed at meeting on 7 May 2007

Date: Attached to agenda for TCF Meeting sent out on Friday 4 May 2007

STP: To be included in Telecom's LLU STP

Note: This issue was discussed at the Working Party meeting, and the drafting has been updated by Telecom. No paper provided.

Recommendations for unanimous agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

- (a) Subject to paragraph (b) below and subject to circumstances where cabinetisation has already occurred prior to the CC's final LLU and Co-location standard terms determination (**STD**) being determined (**Determination**), Telecom will provide Access Seekers taking services under the Determination with 18 months' prior written notice (or less by agreement) of existing lines being cabinetised. Until such time as the terms for sub-loop unbundling of lines and co-location are determined by the CC under the Telecommunications Act and those services are available under the relevant STD, Telecom will provide 24 months' prior written notice (or less by agreement) of existing lines being cabinetised.
- (b) Where Telecom is required to cabinetise in less than the relevant notice period in paragraph (a) above for any of the following reasons:
 - (i) cabinetisation is already planned to occur inside the relevant notice period in paragraph (a) above at the time of the CC's Determination;
 - (ii) to meet reasonably unprecedented or reasonably unanticipated network growth (e.g. property development that drives significant demand and has not been forecast within the relevant notice period);
 - (iii) in emergency circumstances or where Telecom becomes aware of a material risk to service that requires action in order to ensure network continuity;
 - (iv) to replace the relevant part of the copper network because it has come to the end of its life, has significantly deteriorated or it has been damaged beyond repair, and in all cases this was reasonably unprecedented or reasonably unanticipated; or
 - (v) regulatory or legal events;then Telecom will give the Access Seekers as much notice as reasonably possible in the circumstances.
- (c) No exchange priority interference management will be provided for affected lines post cabinetisation.
- (d) Post cabinetisation, lines that are transferred from the exchange to the active cabinet will terminate at the cabinet for the purposes of the LLU MPF definition.

- (e) At the expiry of the relevant notice in paragraph (a) or (b) Telecom will be entitled to terminate any relevant service affected by such notice and the Access Seeker shall have complied or will comply with any or all obligations under the Determination.
- (f) Telecom will within 10 working days of the Determination (**Initial Notice**) and every six months thereafter provide Access Seekers with a written rolling three year cabinetisation forecast. This forecast will broadly outline Telecom's indicative investment plans (as at the date of the forecast) for cabinetisation over the three years, and will include an evaluation of the impact such investment plans may have on individual exchanges, an estimate of the number or percentage of lines in each exchange that may be affected and an indication of which lines in each exchange may be affected.
- (g) The Initial Notice will list any cabinets and affected lines described in subparagraph (b) (i) of this recommendation. The Initial Notice will have the same status as the notice under paragraph (a).

Recommendation 4 – Co-location Design

Paper: TCF Discussion Paper – Co-location Design (Detailed)

Date: 4 May 2007

STP: To be included in Telecom's Co-location STP

Note: This paper has been updated since it was presented to the Working Party.

- This paper represents Telecom's view and it is recognised that some of the recommendations may not reflect the view of the Working Party.
- Telecom has not included in the recommendation the parts of the Co-location Design paper that were detail around Telecom's current operational practice

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

Preferred Configuration

- (a) The default configuration for all exchanges is co-mingled racks.

Space Restrictions

- (b) Where there are space restrictions, the default position is racks, which will be co-mingled within a shared row.

Where There are No Space Restrictions

- (c) In the case of moderate or low space restrictions an Access Seeker may order space with the intention that it is reserved for later use. The Access Seeker will pay the full price as if it were using the space from the ready for service date. Only if space within the co-location area becomes restricted will the 'use it or lose it' policy come into effect.
- (d) The 'use it or lose it' policy in this case is that if an Access Seeker has ordered space and is not using it and space within the exchange becomes limited then Telecom can give the Access Seeker six months' notice within which time the Access Seeker must either 'use it' or must give up the space at the end of the notice period. Telecom will give such 'use it or lose it' notice to the Access Seeker when it determines that space has become restricted. Refer to paragraph 12 of the Prioritisation Paper (Recommendation 5) for the definition of 'use it'.
- (e) However, during the initial 6 months after the final STD is determined, no Access Seeker will be able to order space unless that Access Seeker intends to use that space within 6 months from the ready for service date. The exception to this rule is where an Access Seeker has technical and/or operational reasons that require future equipment to be co-located adjacent to existing equipment

(e.g. for network expansion requirements). In this case that Access Seeker will be able to order space for future use beyond the first 6 months (**Future Use**), provided it notifies Telecom of such requirements.

- (f) Depending on the pricing mechanism in the STD for installation costs, (i.e. who should “play bank” for installation costs) there will be a mechanism in the STP so that no Access Seeker is financially disadvantaged by an Access Seeker ordering space for **Future Use**.

Initial Space Allocation

- (g) Subject to paragraph (h) below, following the final STD being determined, Telecom will allocate space within each exchange for which it has received orders from Access Seekers in accordance with the prioritisation principles in the Prioritisation Paper (Recommendation 5) (**Initial Space Allocation**).
- (h) Telecom will ascertain from Telecom Wholesale whether it needs space for Future Use in each of the relevant exchanges. Where Telecom Wholesale requires space for Future Use, that space must be accommodated within the **Initial Space Allocation** and will be allocated adjacent to existing equipment, provided that there is moderate or low space restriction in the relevant exchanges.

Tier 0-2 Exchanges

- (i) Telecom has an increased security requirement at a number of sites, which provide centralised core network functionality that extends to a number of equipment areas at those sites. The security of these sites is key to the robustness of the Telecom network and its associated service platforms. As a result there are some limitations on the use of building spaces in these sites to ensure appropriate levels of security and environmental control can be provided. In these sites it will not be desirable to provide co-mingling in existing equipment rooms housing sensitive core network equipment.
- (j) For Tier 0-2 exchanges (**Exchanges**) several options will be considered when addressing the need to separate the space for Access Seeker racks from the core network. These options include:
 - a separate caged off area of the same room as the core network equipment;
 - another room; or
 - caging of core network.

The exchange audit will indicate the methods of build required.

- (k) Telecom will pay the cost of providing caging or separate rooms in these Exchanges.

- (l) Telecom will endeavour to complete the build required in these Exchanges by the date that the final STD comes into effect or an Access Seeker requires space in an Exchange. In the event that this build is not complete by that time Telecom will provide interim arrangements to allow Access Seekers access to these Exchanges (such as escorted access) for co-location.
- (m) Telecom agrees to deploy all new Telecom Wholesale DSLAMs and LLU equipment in the separate co-location area of these Exchanges.
- (n) The location and design of the Access Seeker space will be to a standard that ensures layout and operational performance are no worse than the area where the existing Telecom DSLAMs are currently housed. Telecom will seek to ensure wherever possible the requirement for a separation from Telecom core network will not unduly affect the Access Seeker with respect to the following factors:
 - timing LLU launch in a particular exchange,
 - technical performance,
 - co-location installation cost, and
 - space availability.
- (n) [

]¹.

- (o) In assessing the availability of exchange space Telecom will factor in its requirement for its core network, both existing and planned growth, to have priority on the use or reservation of floor space for equipment, power and environmental support services. The definition of "core network" is to be determined as part of the STD process.
- (p) The allocation of space within rows would not necessarily be sequentially filled and gaps may be left between Access Seeker racks for growth. However, if space prevents this methodology then sequential row filling may occur.
- (q) Space allocation will be based on firm orders with 'use it or lose it' rules applying (details in Prioritisation Paper).
- (r) Telecom will build the rows in a manner which provides an economical solution; this may involve construction of more space than immediately required if that is sensible for medium term space efficiency or cost efficiency.

Cable Management

- (s) Tie cables - the handover point for exchanges with co-location is an HDP on the MDF.
- (t) Telecom contractors will install blocks on MDF and cable from MDF to co-location space including installing any iron work required. Telecom will terminate cable on blocks at MDF and Access Seeker will terminate cable in cabinet.

Access Seeker Power

- (u) Telecom proposes the provision of -48V DC in 16A steps to Access Seeker Cabinets as part of the regulated service with provision of 230V 50Hz AC as a commercial service in 10A steps.

¹ This section contains confidential information

Access Seeker Air conditioning

- (v) All air conditioning will be provided to Telecom specification as ventilation will circulate all cabinets and racks.

Housing of Equipment and Building Services

Building Infrastructure

- (w) Telecom will provide DC power.
- (x) The DC power provided by Telecom for Access Seekers will have the same back-up capability as provided to Telecom equipment.
- (y) All air-conditioning and ventilation will be provided to Telecom specification and to the same standard as provided to Telecom equipment.

Equipment Rooms

- (z) Telecom builds and operates its equipment rooms to the following standards:
- Seismic - Telecom equipment is supported using structures in accordance with NZS 4203 seismic standard and its successors.
 - Earthing - All equipment racks are electrically isolated from the building fabric (including the seismic equipment support) to prevent electrical interference from stray currents etc. A Telecommunications Earth bar is provided in each room to which equipment earth systems are to be connected. This system provides a controlled path back to the building earthing system.
 - Cable Trays - Overhead cable trays are installed between equipment racks and network access points e.g. Copper connectivity (MDF) for the Access Network and Fibre termination frames (OFDF). These trays will extend to Access Seeker cabinets or racks.
 - Lighting - Lighting is installed to provide approximately a level of 500 lux at a level of approximately 600 mm off the floor on a vertical plain of equipment.
- (aa) Access Seekers' equipment will meet the requirements set out in paragraph (z) above.

General Maintenance

- (bb) Telecom will, as part of its normal maintenance program, ensure all facilities of the service are within specification.

Access Rights to Telecom Facilities

- (cc) All people who access the area must have completed Telecom's network safety training and comply with Telecom's Health & Safety instructions.

- (dd) A PTW (permit to work) is required to work in the co-location space, which is potentially linked to a live security controller in the future. The operations manual will contain a defined process that is being established for permit to work requirements.
- (ee) Specialist personnel requiring temporary access (one day or less) to the co-location facility must be accompanied at all times by a person who has completed the training outlined in paragraph (cc) above (a certified person), who will be responsible and accept liability for the specialist's actions onsite. The certified person is required to sign the specialist personnel in by following the procedure in co-location operations manual, this must be done before access is granted (personnel regularly accessing Telecom sites, ie more than once per annum, must complete the training programme in paragraph (cc))

Access Seeker Equipment

- (ff) All electrical equipment must be electrically safe, meet standard EMC emissions requirements, be correctly earthed, must comply with PTC / interference plan.
- (gg) Only Access Seeker equipment used exclusively for the purpose of LLU can be co-located on Telecom premises under the co-location STD.

Recommendation 5 –Prioritisation

Paper: TCF Discussion Paper – LLU Prioritisation

Date: 9 May 2007

STP: To be included in Telecom’s Co-location STP

Note: This paper has been updated since it was presented to the Working Party.

- Bulk Migration is contained in Recommendation 11

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

Introduction:

1. In the LLU context, prioritisation rules may need to be applied at several points during the initial phases of an implementation:
 - (a) Selection of exchanges to be audited (the prioritised and ordered list by date)
 - (b) Selection of exchanges to be unbundled (the prioritised and ordered list by date)
 - (c) Space allocation at an unbundled exchange (where there is over-subscription)
 - (d) Build (where many access seekers require construction concurrently at one or more exchanges)
 - (e) Bulk Migrations (where more than one access seeker wishes to move customers to their installed DSLAMs on the same day).

Method of Prioritisation

2. With all of the different phases there is a requirement to determine the overall prioritisation of a list of Access Seekers’ requests each with their own priority. The following method is proposed for overall prioritisation:
 - (a) Allocate a score to each exchange on each Access Seeker’s list, the score for the highest priority on each Access Seeker’s list is ‘n’ where ‘n’ is equal to the number of exchanges on the longest list. The score for the second highest priority on each access seekers list is ‘n-1’ and for the third highest priority on each access seekers list is ‘n-2’, and so on.
 - (b) A score is allocated to all exchanges on all Access Seekers’ lists even if there are not ‘n’ items on list.

- (c) The scores for each exchange are totalled and the exchanges placed in order of descending score.
- (d) If two or more exchanges receive the same score they are placed in alphabetical order.
- (e) The resultant list is the priority order, which is subject to review by external auditor in the event of a complaint.

3. For example:

The following list is provided;

TCL	Ihug	Orcon	Callplus
MDY	ELL	GLF	MDY
GLF	MDY	TBY	BSY
ELL	BSY	MDY	DA
		BSY	GLF

Allocate a score to each exchange on each Access Seeker's list, the score for the highest priority on each access seekers list is '4' where '4' is equal to the number of exchanges on the longest list. The score for the second highest priority on each access seekers list is '3' etc; A score is allocated to all exchanges on all access seekers lists even if there are not 'n' items on list

TCL		Ihug		Orcon		Callplus	
MDY	4	ELL	4	GLF	4	MDY	4
GLF	3	MDY	3	TBY	3	BSY	3
ELL	2	BSY	2	MDY	2	DA	2
				BSY	1	GLF	1

The scores for each exchange are totalled and the exchanges placed in order of descending score. If two or more exchanges receive the same score they are placed in alphabetical order (BSY and ELL). The resultant list is the priority order.

MDY	4 + 3 + 2 + 4	13
GLF	3 + 4 + 1	8
BSY	2 + 3 + 1	6

ELL	2 + 4	6
TBY	3	3
DA	2	2

Selection of Exchanges for Inclusion in the Implementation Plan

4. Telecom will aggregate the Access Seekers’ list of exchanges (up to 20) for which they have expressed an interest for the purposes of the initial pre-STD audit and not discuss the content or the order of priority of the aggregated list outside of Telecom. Telecom will then commence with the audit which will cover each Access Seeker’s exchange list, and the audit information will be disclosed individually to each Access Seeker at the same time once completed.
5. The Access Seeker will pay for audits they request.
6. The audit form is attached as part of Recommendation 16.

Selection of Exchanges

7. The roll out order for the build of LLU capability, both initially and on going, will be based on the priorities of all the Access Seekers including Telecom. This list will be tempered, in consultation with the Access Seekers, if there are long build delays at a particular exchange; however it is expected that the priority of long lead-time exchange will be resolved as a result of initial audits and before firm orders are placed.
8. The combination of the individual Access Seeker priorities into a single master list will be achieved by using the method in paragraph 2 above.
9. The STP will include an indicative list of around 40 exchanges compiled from the Access Seekers top 20 list combined using the method described in paragraph 2 and a description of the process to prioritise the rest. The actual build list will be based on the firm orders and their relative priorities as supplied by the Access Seekers.
10. In the event that an Access Seeker feels the prioritisation order has not been correctly calculated they may refer it to the dispute procedure.

Space Allocation Within Exchanges

11. Telecom will have first priority in respect of equipment used to provide Core Network. The definition of “core network” is to be determined as part of the STD process.
12. The allocation of space build of LLU capability, both initially and on going, will be based on first come first served subject to Telecom having first priority in respect of equipment used to provide Core Network, (as above, the definition of “core network” is to be determined as part of the STD process). In the event that an

Access Seeker fails to use the space it has been allocated, and for which it is paying, after six months it will lose the space and drop to the bottom of the queue. 'Use it' being defined as an installed rack or cabinet housing operational equipment.

13. If the total demand exceeds the supply of space in the short term Telecom will scale all orders down equally with a minimum of one cabinet or rack. Telecom will build space in exchanges based on the combined firm orders of all Access Seekers at that exchange.
14. A firm order is defined as a binding obligation under the STD for Telecom to commence with the build of the exchange, and the Access Seeker is to pay from the ready for service date.
15. In the event that an Access Seeker feels the prioritisation or scaling has not been correctly applied they may refer it to the dispute procedure.

Space Allocation on Exchange MDF

16. The allocation of space build of LLU capability, both initially and on going, will be based on first come first served for ALL the Access Seekers.
17. If the total demand exceeds the supply of space in the short term during the bow wave Telecom will scale all orders down equally with a minimum of one tie cable 400x On an ongoing basis space on MDF will be allocated on a first come first served basis. The maximum number of tie cable pairs per operational cabinet or rack that can be ordered at any one time will be 1000x per order, unless the Access Seeker can provide evidence of a demonstrable demand, in which case that Access Seeker can order as many tie cable pairs as they require. Telecom will build space in exchanges based on the combined firm orders of all Access Seekers at that exchange.
18. In the event that an Access Seeker feels the prioritisation or scaling has not been correctly applied they may refer it to the dispute procedure.

Recommendation 6 –Implementation Plan

Paper: TCF Discussion Paper – LLU Implementation Plan

Date: 26 April 2007

STP: To be included in Telecom’s LLU and Co-location STP

Note: Paper has been updated since the last TCF meeting

- Reference to an independent adjudicator has been deleted.

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

- (a) The launch of LLU and Co-location is contingent on the final STD.
- (b) A list of exchanges is required under the CC’s notice, albeit the actual unbundling process will be dependent on firm orders from Access Seekers.
- (c) The implementation of LLU, beyond the completion of the STD, is driven by the list of exchanges required to be unbundled as based on Access Seeker requirements. This list needs to be time-phased and set out in a roadmap for submission to the CC.
- (d) The method of establishing the initial exchange list is set out in the Prioritisation and Co-location design papers. Ultimately Telecom can only build out sites based on firm orders taking into account requirements such as, timing, funding and resource constraints.
- (e) Telecom will consider which of these may be most straight forward to prepare for trial and soft-launch purposes.
- (f) The initial roll out list for exchange build will then get scheduled based on the assumption that Access seekers wish to approach the initial 6-12 months as a bow-wave period. A degree of pragmatism is applied to the roll out list (i.e. some exchanges in different regions can be approached in parallel avoiding the risk of an all-Auckland first outcome).

Recommendation 7 – Dispute Resolution

Paper: TCF Discussion Paper – LLU Technical Dispute Resolution

Date: 10 May 2007

STP: To be included in Telecom’s LLU and Co-location STPs

Note: This paper has been updated since it was presented to the Working Party.

- Added - Eligibility criteria for the independent expert (to be consistent with the Dispute Resolution Process).
- Added - The expert can obtain independent legal advice (to be consistent with the Dispute Resolution Process).
- Provision of a draft decision by the expert.

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

General

- (a) Any dispute, disagreement, question or difference that arises between the parties in relation to this agreement of a technical, operational or implementation nature (excluding any matter for which a dispute resolution process is otherwise specified for example the Operations Manual change process) (**Dispute**), must be resolved in accordance with the provisions in this clause 1.

Notice of Dispute

- (b) If a Dispute arises either party may give the other written notice requiring that the Dispute be determined in accordance with this clause (**Dispute Notice**). A party’s Dispute Notice must specify:
- the nature of the Dispute;
 - its representative for negotiations under paragraph (d);
 - its suggestion for settling the Dispute.

Response to Dispute Notice

- (c) The party receiving the Dispute Notice must, within 5 Working Days of receipt, reply to the other party by notice in writing specifying:
- its representative for negotiations under paragraph (d);
 - its suggestion for settling the Dispute.

Negotiations

- (d) The parties must enter into negotiations to resolve the Dispute within 10 Working Days of receipt of the Dispute Notice. Negotiations must be held between a senior representative of each party who must have authority to settle the dispute. The senior representatives must endeavour to resolve the Dispute within 20 Working Days of receipt of the Dispute Notice. If the senior representatives are not able to resolve the Dispute within 20 Working Days of receipt of the Dispute Notice then the Dispute will be considered to have reached a deadlock (**Deadlock**).

Dispute resolution option where negotiations fail

- (e) If the Dispute reaches Deadlock then either party may by notice in writing to the other party refer the Dispute to expert determination in accordance with paragraph (f).

Expert Determination

- (f) Where either party wishes to refer a Dispute which has reached Deadlock to expert determination, it may do this by issuing notice in writing to the other party (**Expert Referral Notice**). In the event of such referral, the following provisions will apply:
 - (i) The expert will be appointed by agreement between the parties. However, if the parties can not agree on the expert within 5 Working Days of the Expert Referral Notice, then an appropriately qualified and experienced expert will be appointed at the written request of either party by the chair of the TCF. The party making this request will use, and where possible ensure that the TCF Chair uses, best endeavours to ensure that the appointment of the expert occurs no later than 15 Working Days from the date of the Expert Referral Notice. The party making this request must copy the request to the other party.
 - (ii) To be eligible for appointment, the expert must be independent and impartial, must be experienced in the relevant area of telecommunications and will preferably be experienced in dispute resolution procedures. Unless the parties to the dispute agree otherwise, he or she must not have performed any duties, whether as an employee, consultant or contractor, for any of the parties to the dispute or any related party during a 12-month period prior to the date the Dispute Notice was given.
 - (iii) The expert may seek independent legal advice regarding the appropriate procedures for resolution of the dispute.
 - (iv) The expert must adopt a procedure which, in the expert's opinion, is the most simple and expeditious procedure practicable in the circumstances.
 - (v) The parties will provide the expert with any information that the expert reasonably requires in a timely manner. The expert is entitled to make his or her determination in the absence of the information requested being provided but subject to a reasonable time being given to the relevant party to provide that information.
 - (vi) The expert will act as an expert and not as an Arbitrator under the Arbitration Act. The expert will be entitled to rely on his or her own judgement and opinion.

- (vii) The expert should seek to make decisions that are timely, practicable, efficient, and will take into account the Telecommunications Act, in particular the relevant standard access principles under the Telecommunications Act.
- (viii) The expert will provide the parties to the dispute with a draft determination for comment prior to finalising it. The expert must provide the parties to the dispute with a reasonable period in which to comment on the draft determination and must take any comments received during that period into account in finalising his or her determination.
- (ix) The expert must provide his or her written final determination (which must include reasons for that determination) to the parties as soon as reasonably practicable and in the absence of manifest error or bad faith that determination will be final and binding upon the parties. Either party to the dispute has 10 Working Days from the date the final determination is provided to assert that the expert's determination contains a manifest error or the expert has acted in bad faith.
- (x) Except as set out in paragraph (xi), the costs of the expert will be borne equally by the parties. Each party will bear its own costs in relation to the expert's determination.
- (xi) Where a party to the dispute has asserted that the expert's determination contains a manifest error or the expert has acted in bad faith in accordance with paragraph (ix) above, and such assertion is not upheld in that party's favour by the relevant court or authority, then the party making the assertion will bear the costs (that is, all court or other authority costs) of both parties to the dispute.

Good faith and continuity

- (g) Pending resolution of any Dispute, each party will:
 - make all reasonable efforts in good faith to resolve the Dispute promptly and in a manner which minimises any impact on the performance of this standard terms determination; and
 - continue to perform its other obligations under this standard terms determination.

Remedies under the Telecommunications Act

- (h) Nothing in this clause 1 will prevent either party from seeking any remedies available to it under the Telecommunications Act 2001.

Recommendation 8 – Trial Objectives & Approach

Paper: Trial Objectives & Approach

Date: 27 March 2007

STP: N/A

Note: This paper is no longer available for agreement, as this trial is not relevant to the STP.

Recommendation 9 – Service Level Agreement

Paper: Overview Service Level Agreements for LLU and Co-Location

Date: 7 May 2007

STP: To be included in Telecom's LLU and Co-location STPs

Note: This paper summarises Telecom's agreed position with the Working Party. No paper provided.

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

- (a) The Service Level Agreement (**SLA**) will only apply once the LLU or Co-location service (as appropriate) is launched and will not apply during the trial and soft launch phases.
- (b) The SLA change control process will be the same as that for the Operations Manual.

Recommendation 10 – Bulk Transfer Definitions Release

Paper: Bulk Transfer Definitions Release

Date: 13 April 2007

STP: To be included in Telecom's LLU STP

Note: this paper has been circulated for review by the TCF

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

Bulk Transfer Capability

- (a) In order for Access Seekers to take advantage of LLU and migrate large volumes of their existing customers off one Provider's Network and Equipment onto their own, capability must be provided.
- (b) There are three circumstances under which this will be required:
 - Initial migration of an Access Seeker's customers from existing Telecom provided services to LLU (The Bow Wave)
 - Successive Bulk Migrations as Access Seekers build customer numbers on UBS or Wholesaled products, then require to migrate them to LLU
 - Transfer between Access Seekers as the result of a mass acquisition

Each scenario above has different drivers but the underlying capability required is the same.

- (c) This activity only applies where the following criteria are met:
 - This must be a planned event with representatives from Telecom, the LLU operator, and the losing provider (where there is one), working through the agreed process.
 - The Customer end does not change location.
 - Customers are all fed from the same serving exchange.
 - The gaining Access Seeker is the same.
 - This does not include new connections, moves or relinquishments.
 - No additional services are able to be requested on a line as part of this process.
- (d) It is desirable to be able to treat this as "many of the same" as far as processing is concerned to ensure record integrity is maintained, but at the same time it is necessary to maximise the use of resources.
- (e) These transfers, while outside the Regular forecast process, will need to be scheduled at the appropriate time during the site build phase to ensure resources are available. These will be Planned and Managed events.

- (f) It is therefore proposed that a separate schedule be established for these transfers reflecting the number of possible jobs achievable per day on a site by site basis, and the field force resources be scheduled against this.
- (g) The orders will be created as "regular transfer orders" and grouping of the orders will be supported with a Canopy type order being established for each "batch" with the Access Seeker attaching each order to the batch as it is created. The size of the batch will be as agreed during the planning phase, up to the agreed number per batch / day.
- (h) Number portability will be treated as it is for a regular transfer.
- (i) Billing for this will be via the standard SPOT code method, although a price re-adjustment may be manually applied via post processing. This detail will be determined as part of the Pricing activity and may need to be looked at on a site by site basis.

Targeted Sales Support

- (j) The Access Seeker can request at its cost additional capability to support requests above those contained in its forecast.
- (k) This activity only applies where the following criteria are met:
 - The end customers may change Service Provider
 - All orders will be for the same exchange site
 - This may include New Connections
 - These are in excess of regular monthly forecasts as submitted but volumes must be signalled via the planned activity process for this type of transfer
 - It is desirable to have "dedicated" resources made available for these requests.
- (l) It is envisaged that this may be achieved by the use of a standard transfer order, but utilising a separate schedule reflecting a dedicated resource for this work.
- (m) These are however, in excess of the standard forecasting process but still are required to be a planned activity with Telecom establishing supporting schedules in alignment with forecasts from the Access Seeker to support their sales initiative. The number of orders that could be managed per day would be tempered by any site constraints.

Bulk line transfer for a single customer

- (n) The Access Seeker can request at its cost additional capability to support bulk transfer of lines for a Single End Customer at a single exchange site. This is to support the Business Customer situation whereby the company has multiple lines that all need to be transferred in a co-ordinated manner.
- (o) This capability will support the following scenario:
 - All end customer lines are fed from the same exchange site
 - All orders are transfer orders
 - All orders are for the same Access Seeker as the destination Access Seeker

- There are at least 10 lines to be transferred (unless otherwise agreed, less than 10 should be treated as standard transfer request), with the maximum number in the batch being defined by site constraints.
- (p) These orders are considered to be part of regular forecasted volumes.

Recommendation 11 – Bulk Request Prioritisation

Paper: Bulk Request Prioritisation

Date: 10 May 2007

STP: To be included in Telecom's LLU STP

Note: From prioritisation paper

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

Proposal

- (a) To allow the available resources to be primarily utilised by each Access Seeker in a prescribed order based on the date the Access Seeker commits to their Migration Schedule (on a date basis).
- (b) Resources will be used in a serial fashion and in a prescribed order. For example, if there is capacity to complete 100 transfers per day at a site, then that resource would work only on transfers for a single Access Seeker and when all their planned batches are complete start the work for the next Access Seeker.
- (c) In the case that more resource is available to perform transfers than is able to be supported by the Access Seeker (Access Seeker cannot manage the volume of transfers possible per day at their end) the additional resource may be able to be utilised performing transfers for the next Access Seeker on the priority list.
- (d) The order will be the order in which Access Seekers commit to their Migration Schedules.
- (e) This process will only be initiated where there is a contention for resources.
- (f) Under normal circumstances, the order of any transfers will be determined by who is ready to transfer first (more than likely defined by who starts build activity first), and it is only when two or more parties are ready at the same time, that this process will define the priority.
- (g) In the case that two or more Access Seekers commit their Migration Schedules on the same date, the priority will be determined by "the throw of a coin".
- (h) Telecom will advise an Access Seeker of when its bulk migration will be processed, and this information will be kept confidential between the relevant Access Seeker and Telecom.
- (i) The Telecom may also at the time of site audit, provide an indication of the number of transfers possible per day based on space contentions. This however will only be an indication of what may be possible, and actual volumes will be confirmed when bulk migration planning commences. (Events

outside BAU may cause resource shortages that may need to be considered, BAU capability must be preserved above all other requirements).

- (j) The Prioritisation regime will apply to the following:
- Space resource constraints at distribution frames for Bulk Transfers;
 - Space resource constraints at distribution frames during initial build activity;
 - Resource constraints during Bulk Transfers ; and
 - Any circumstances where Transfer activity poses a risk to impacting BAU provisioning activity.

Recommendation 12 – Customer Authorisation Release

Paper: Customer Authorisation Release

Date: 13 April 2007

STP: To be included in Telecom's LLU STP

Note: This paper has been circulated for review by the TCF

Recommendations for Unanimous Agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

Proposal

- (a) In general, the Transfer Code will apply to the STP.
- (b) In the case where there is no change in Service Provider it is expected that the Transfer Code Section would not apply.

Recommendation 13 – Clarification of Fault Terms

Paper: Clarification of Fault Terms

Date: 18 April 2007

STP: N/A

Note: This paper is no longer available for agreement, as this paper is not relevant to the STP.

Recommendation 14 – Special Investigations

Paper: Special Investigations

Date: 18 April 2007

STP: N/A

Note: This would be a commercial service, so will be considered by Telecom for inclusion in the WSA following the STD.

Recommendation 15 – Required Fault Status

Paper: Required Fault Status

Date: 18 April 2007

STP: N/A

Note: This paper was a discussion paper only.

Recommendation 16 – Initial Site Assessment

Paper: Local Loop Unbundling Loop Wire Centre Initial Co-location Space Assessment

Date: 4 May 2007

STP: To be included in Telecom's Co-location STP

Note: This paper is updated from the paper circulated to the TCF

Recommendations for unanimous agreement by the Working Party

Telecom makes the following recommendations for unanimous agreement by the Working Party:

- (a) The Access Seeker can request an initial audit to establish the potential space availability at the requested loop wire centre.
- (b) The information provided as a guide ahead of a firm order being placed by an Access Seeker. Its purpose is to provide information about the availability of free space within a site to allow entry for Access Seekers to install terminal equipment at the copper access point. It is not intended that this assessment will enable detailed design.
- (c) Most of the initial audits will be completed from existing records as a desktop exercise; however, where these are incomplete, a visit to the relevant site may be required.

FORM

Local Loop Unbundling

Loop Wire Centre Initial Co-location Space Assessment

1. SITE DESCRIPTION

Loop Wire Centre Name	
Location <ul style="list-style-type: none">• physical address	
General Description <ul style="list-style-type: none">○ Describe the site and condition of the LWC	

2. ACCESS SEEKER REQUIREMENTS

Requirements to be provided by Access Seeker	
<ul style="list-style-type: none">• Footprint (dimensions)	
<ul style="list-style-type: none">• Thermal load	
<ul style="list-style-type: none">• Power load	
<ul style="list-style-type: none">• Terminations (copper, fibre)	
<ul style="list-style-type: none">• Timing	
<ul style="list-style-type: none">• Service type	
<ul style="list-style-type: none">• Capacity forecasts	

3. SPACE ASSESSMENT

First Co-Lo Area (See Note 2)

Space	
<ul style="list-style-type: none">○ Describe where in the site	
<ul style="list-style-type: none">○ Type of space available (co-mingled, roomed, caged, remote) and reasons for that type (See Notes 3,4,5,6)	
<ul style="list-style-type: none">○ Amount of space available (in units of standard footprints) (See Note 1)	
<ul style="list-style-type: none">○ Comment on other issues e.g. is any space allocated as reserved	

Common Services (See Note 7)	
<ul style="list-style-type: none"> ○ HVAC - No. of footprints with - No. of footprints without - Leadtime to provide HVAC where not present 	
<ul style="list-style-type: none"> ○ Seismic framing - No. of footprints with - No. of footprints without - Leadtime to provide seismic where not present 	
<ul style="list-style-type: none"> ○ DC power - No. of footprints with - No. of footprints without - Leadtime to provide DC where not present 	
<ul style="list-style-type: none"> ○ Comment on other issues e.g capacity expiry 	

Handover Point	
<ul style="list-style-type: none"> ○ Space on MDF for terminating 100 pair blocks (i.e no. E side verticals) 	
<ul style="list-style-type: none"> ○ Cable distance from co-lo area to MDF ○ Is/can a cable route established. If not why? 	
<ul style="list-style-type: none"> ○ Comment on other issues 	

Check List of Readiness	
<ul style="list-style-type: none"> ○ Would this co-lo area have cost implications? 	
<ul style="list-style-type: none"> ○ Would this co-lo area have timing implications? 	
<ul style="list-style-type: none"> ○ Would this co-lo area have access issues? 	
<ul style="list-style-type: none"> ○ Would this co-lo area have access issues? 	

Add separate space assessments for each additional co-lo area within the site as applicable

5. SIGN OFF

Assessment Completed By:	Date	Signature

Notes

1. Footprint: One standard unit is one rack or bay 1900-2500mm high, 600mm wide, 800mm deep with minimum of 100mm clearance each side and a 1000mm clearance front and back. Each standard unit is assumed to have an energy utilisation of 2kW – 3 kW unless otherwise stated
2. Co-lo Area: There may be a choice of areas within an LWC where Access Seeker equipment may be installed. A separate assessment of the attributes of each area is required
3. Co-mingling of racks: Are whole racks that are inter-mixed with racks of other Access Seekers or Telecom.
4. Co-location room: Is a separate room for Access Seeker equipment. Also known as hostelling
5. Caged: segregation of Access Seeker equipment is by means of caging rather than rooming
6. Remote: Access Seeker equipment is housed at a secondary site in close proximity to the primary site
7. Common services: HVAC, DC, seismic framing. UPS and AC are not being considered.