



TELECOM SEPARATION UNDERTAKINGS

**As provided to the Minister of
Communications on 25 March 2008 in
accordance with section 69K(2)(c) of the
Telecommunications Act 2001**

CONTENTS

BACKGROUND.....	3
PART 1: DEFINITIONS AND INTERPRETATION	4
PART 2: SCOPE AND APPLICATION	19
PART 3: IMPLEMENTATION	22
PART 4: FIXED NETWORK ACCESS SERVICE BUSINESS UNIT (ANS UNIT)...	26
PART 5: WHOLESALE BUSINESS UNIT.....	44
PART 6: RETAIL UNITS.....	66
PART 7: TELECOM FIXED NETWORK BUSINESS UNITS.....	68
PART 8: ENFORCEMENT AND OVERSIGHT FOR COMPLIANCE WITH SEPARATION PLAN.....	71
PART 9: PARTICIPATION IN POLICY AND DISCLOSURE OF CERTAIN INFORMATION.....	77
PART 10: MISCELLANEOUS PROVISIONS.....	83
SCHEDULE 1 - TRANSITION TO EQUIVALENCE.....	92
SCHEDULE 2 - SHARED SERVICES, PART A PERSONS, PART B PERSONS, AND PART C PERSONS.....	157
SCHEDULE 3 - TIER SITES	163
SCHEDULE 4 - MANAGER OF THE ANS UNIT'S DELEGATED AUTHORITY.....	166
SCHEDULE 5 - WHOLESALE UNIT EMPLOYEE EQUITY SCHEME.....	167

BACKGROUND

- A These Undertakings are given by Telecom in accordance with, and are separation undertakings for the purposes of, Part 2A of the Act.
- B In accordance with section 69N of the Act, these Undertakings are binding on Telecom and are given in favour of the Crown.

PART 1: DEFINITIONS AND INTERPRETATION

1 Definitions

1.1 In these Undertakings, unless the context requires otherwise:

Access Network has the meaning given by clause 14.2;

Access Network Services Unit or *ANS Unit* means the unit referred to in clause 11;

Access Planners has the meaning given to that term in clause 100;

Act means the Telecommunications Act 2001;

Approval Date means the first Working Day after the Minister approves Telecom's separation plan under section 69L(1)(a) of the Act;

Arm's-Length Rules means the rules provided by the following clauses:

- (a) clauses 7 and 88;
- (b) clauses 24 to 41 (which apply to the ANS Unit);
- (c) clauses 52 to 63 (which apply to the Wholesale Unit);
- (d) clauses 70 to 72 (which apply to the Retail Units);
- (e) clauses 74 to 76 (which apply to the Telecom Fixed Network Business Units); and
- (f) clauses 89 to 93 (which relate to Part A Persons, Part B Persons, and Part C Persons);

Board means the TCNZ board, and includes a committee of the TCNZ board;

Cellular Mobile Systems means those systems that are:

- (a) used to provide, support and maintain a mobile radio system in which assigned radio spectrum can be re-used simultaneously in nearby geographic areas without interference between users; and
- (b) capable of supporting hand-off, of sessions or calls, between wireless transmitters;

Such systems include radio transmission systems, and any supporting infrastructure such as buildings, cabinets, poles, transmission systems and associated operational support systems;

CEO means the chief executive of TCNZ;

Commercial Information:

- (a) means information that is confidential and that is in respect of a Relevant Service, including information regarding:
 - (i) service development;
 - (ii) pricing;
 - (iii) marketing strategy and intelligence;
 - (iv) service launch dates;
 - (v) costs;
 - (vi) projected sales volumes; and
 - (vii) network coverage and capabilities; but
- (b) does not include any information, or types of information, that Telecom and the Commission agree in writing is not Commercial Information;

Commercial Policy means policies and plans of a Required Telecom Business Unit relating to any of the following matters in respect of Relevant Services:

- (a) service development;
- (b) pricing;
- (c) marketing strategy and intelligence;
- (d) service launch dates;
- (e) costs;
- (f) non-price terms, including payment terms;
- (g) product specific forecasting; and
- (h) network coverage and capabilities;

Commission has the meaning given to that term in the Act;

Commission's Wholesale Determinations means any of Decision 497, Decision 525, and Decision 563;

Crisis Management Team means a team within Telecom (including contractors and agents of that team) formed from time-to-time to prepare for, manage and facilitate Telecom's response to an operational crisis including operational crises arising from major service affecting events (such as power outages), and disasters of regional or national significance (such as major flooding);

Example

A Crisis Management Team may be formed:

- (a) to participate in a national pandemic preparedness exercise;
- (b) during a state of emergency because of flooding;
- (c) in response to a major power or network outage.

Customer Confidential Information:

(a) means any information that:

- (i) a Service Provider provides to Telecom in relation to the provision of a Relevant Service; or
- (ii) Telecom otherwise holds or obtains in relation to the provision of a Relevant Service to a Service Provider;

and that is confidential to and identifiably about that Service Provider or a person that is, or intends to become, a customer or an End-User of that Service Provider; but

(b) does not include:

- (i) information that was publicly available or known to Telecom at the time of receipt, or that becomes publicly available other than as a result of a breach of confidentiality;
- (ii) information that was obtained by Telecom directly from the customer or End-User or from sources that are independent of the Service Provider;
- (iii) information that is required to be disclosed by law or under the regulations of any stock exchange on which Telecom shares are listed;
- (iv) any information, or types of information, that Telecom and the Commission agree in writing is not Customer Confidential Information; and
- (v) information that a Service Provider agrees in writing is not Customer Confidential Information for the purpose of these Undertakings;

December 2009 Requirements has the meaning given to that term in Schedule 1 of these Undertakings;

Decision 497 means the Commission's determination on the TelstraClear Limited application for determination of certain Resale Services, dated 12 May 2003 (including the clarification of that determination under the Act);

Decision 525 means the Commission's determination on the TelstraClear Limited application for determination of certain Resale Services, dated 14 June 2004;

Decision 563 means the Commission's determination on the TelstraClear Limited application for determination of certain Resale Services (including Private Office Networking), dated 9 December 2005;

Designated Access Service has the meaning given to that term in the Act;

Designated Multinetwork Service has the meaning given to that term in the Act;

Designated Services Price List or *DSPL* means the list of Resale Services and prices that was prepared by Telecom in accordance with the terms of Decision 497 and Decision 563 and that is maintained in accordance with clause 64 of these Undertakings;

DSLAM means a digital subscriber line access multiplexer;

Dual-Use Cellular Wireless Systems means those systems that are:

- (a) used to provide, support and maintain a radio system in which assigned radio spectrum can be re-used simultaneously in nearby geographic areas without interference between users; and
- (b) capable of supporting both of the following applications (i.e. are dual-use):
 - (i) a fixed telephone or data service to a user in a fixed location and which is not capable of supporting hand-off, of sessions or calls, between wireless transmitters (i.e. is not moveable and not mobile); and
 - (ii) a moveable telephone or data service to a user from anywhere within the radio coverage area and which is not capable of supporting hand-off, of sessions or calls, between wireless transmitters (i.e. is moveable but not mobile);

Such systems include radio transmission systems, and any supporting infrastructure such as buildings, cabinets, poles and transmission systems;

Eligible Service Provider means, in relation to information or consultation about a Relevant Service, a Service Provider that:

- (a) is a party to a binding commercial service provision agreement with Telecom for the provision of that service;
- (b) is a party to a binding confidentiality agreement with Telecom that was entered into for the purpose of negotiations with Telecom for the provision of that service;
- (c) is a party to a determination relating to that service issued by the Commission under section 27 of the Act;
- (d) has requested access to the service in accordance with a Standard Terms Determination; or
- (e) has requested access to the service in accordance with a Telecom Registered Undertaking, where that Registered Undertaking provides sufficient terms and conditions to allow the service to be provided without the need for further terms and conditions to be agreed;

Employee means a Telecom employee other than the CEO and, in respect of a Telecom Business Unit, includes the manager of that unit and any other Employee working for that unit;

End-User has the meaning given to that term in the Act;

Equivalence of Inputs or *EOI* or *EOI standard* has the meaning given to that term in clause 1.2;

Executive means the Telecom executive team comprising the CEO and Employees who are appointed by the CEO as part of the executive team, and who will generally report directly to the CEO. Telecom will make a list of the members of its Executive available to the public at all reasonable times on its Internet website;

External Auditor means any suitably qualified independent person appointed to audit any aspect of Telecom's business or its financial or other reports or information;

FTTP Access Network Architecture means an access network which is used to deliver services over fibre media to an End-User's premises, and which is based on passive optical networking technology, and over which multiple End-Users are served by means of a shared transmission system;

Fibre to the Premises Access Service or FTTP Access Service means a packet-based bitstream service provided using FTTP Access Network Architecture that enables access to, and interconnection with, that part of Telecom's NGN that connects the End-User's building (or, where relevant, the building distribution frames) to Telecom's first aggregation switch (or equivalent facility);

Fixed PSTN has the meaning given to that term in the Act;

Fixed Wireless Access System (Fixed End Points) means a network using radio technologies to provide a connection between the network demarcation point at a customer premises and a wireless transmitter (e.g. CMAR, Country Set Radio and Microwave Radio systems) that acts as a substitute or replacement for a copper line. Such systems may encompass radio transmission systems and any supporting infrastructure such as buildings, cabinets, polls, and transmission systems. Such systems do not include Cellular Mobile Systems (i.e. systems that are capable of supporting hand-off, of sessions or calls, between wireless transmitters as per the definition of Cellular Mobile Systems);

Group Audit and Risk means the group within Telecom that implements the Board's risk management framework and provides advice to Telecom on Telecom's risks, risk management processes, operational processes and controls, audit and general compliance activities, and includes support and ancillary staff;

Group Company Secretary means the TCNZ company secretary;

Group Company Secretary's Office means the group within Telecom that provides advice to Telecom on, and is responsible for, Telecom's company secretariat functions (including Board administration, stock exchange listings, companies and securities administration and best practice corporate governance and compliance), Undertakings compliance and monitoring and legal accountability for group mergers and acquisitions and finance transactions, and includes support and ancillary staff;

Group Finance means the group within Telecom that manages Telecom's finance functions including corporate finance, capital markets, mergers and acquisitions, tax, insurance, external reporting, capital allocation, investment policy, pricing and cost analysis from a group perspective, performance reporting and stock exchange listing compliance, and includes support and ancillary staff;

Group Legal Services means the group within Telecom that provides legal advice to Telecom, comprising solicitors who hold practising certificates from the New Zealand Law Society, and includes support and ancillary staff and, for the avoidance of doubt, includes legal regulatory services, but excludes Employees who are directly involved in providing legal advice to the ANS Unit in respect of Relevant Services;

Group Public Affairs means the group within Telecom that manages and provides advice to Telecom on government relations, communications and media that affect Telecom as a whole, and includes support and ancillary staff;

Group Regulatory means the group within Telecom that manages group level stakeholder and regulatory issues, and provides expert regulatory advice to Telecom, and includes support and ancillary staff, but excludes Employees who are directly involved in providing regulatory advice to the ANS Unit in respect of Relevant Services;

Group Strategy and Development means the group within Telecom that provides strategic recommendations to Telecom in relation to strategic decisions and progress that may impact Telecom as a whole, and includes support and ancillary staff;

Group Technology means the group within Telecom that provides technology strategy and recommendations to Telecom and ensures that Telecom's technology activities are co-ordinated and integrated into a single, well aligned end-to-end process by, among other things, applying an integrated technology view, and includes support and ancillary staff;

Human Resources means the group within Telecom that provides a human resources function including providing advice to Telecom on human resource matters, managing recruitment, development planning, performance management, internal communication, rewards, remuneration and benefits, and includes support and ancillary staff;

Independent Oversight Group or IOG means the Independent Oversight Group referred to in clause 77;

IP Interconnection for Virtual Private Network Service means a Layer 3-aware, Layer 2 inter-network connectivity service that:

- (a) carries internet protocol packet-based traffic between Telecom's NGN core and a Service Provider's NGN core and includes the selection of Telecom's handover point locations and their catchment areas; and
- (b) can be used by Telecom and that Service Provider as an input service in order to provide services which provide for the linking of End-Users' virtual private networks.

Such a connectivity service will provide transport links between the networks terminating at the first switch within Telecom's NGN core;

IP Interconnection for Voice Service means a Layer 3-aware, Layer 2 inter-network connectivity service that:

- (a) carries internet protocol packet-based traffic between Telecom's NGN core and a Service Provider's NGN core and includes the selection of Telecom's handover point locations and their catchment areas; and
- (b) can be used by Telecom and that Service Provider as an input service in order to provide the services of originating or terminating each other's conversational IP voice calling retail services.

Such a connectivity service will provide transport links between the networks terminating at the first switch within Telecom's NGN core;

Local Access Network has the meaning given to that term in clause 14.2;

Manager of the ANS Unit means the person appointed at the relevant time in accordance with clause 25;

Manager of the Wholesale Unit means the person appointed at the relevant time in accordance with clause 53;

Minister has the meaning given to that term in the Act;

Mobile Services means:

- (a) services delivered predominantly by means of Cellular Mobile Systems, and which enable calls or communication sessions to be maintained when an End-User moves location, including moving between areas served by different wireless transmitters; and
- (b) services provided by one Telecom Business Unit to another Telecom Business Unit or Service Provider for the purpose of enabling a service described in (a) above such as site co-location, roaming, cell-site linking and backhaul;

New Zealand has the meaning given by section 29 of the Interpretation Act 1999;

Part A Person means a person or functional group (including relevant Employees, agents, contractors, and external advisors of that person or group) listed in Part 2 of Schedule 2 as being permitted to Participate in Policy of the ANS Unit or the Wholesale Unit in accordance with clause 89;

Part B Person means a person or functional group (including relevant Employees, agents, contractors, and external advisors of that person or group) listed in Part 2 of Schedule 2 as being permitted to receive ANS Unit or Wholesale Unit Commercial Information in accordance with clause 90;

Part C Person means a person or functional group (including relevant Employees, agents, contractors, and external advisors of that person or group) listed in Part 2 of Schedule 2 as being permitted to receive ANS Unit or Wholesale Unit Customer Confidential Information in accordance with clause 91;

Participate in Policy means to participate in the formulation or making of:

- (a) annual or long-term corporate plans or technology plans to the extent they relate to Relevant Services;
- (b) other significant plans to the extent they relate to Relevant Services; and
- (c) Commercial Policy;

Public Switched Telephone Network or PSTN has the meaning given to that term in the Act;

Regional Backhaul Network has the meaning given to that term in clause 14.2;

Registered Undertaking has the meaning given to that term in the Act;

Regulated means, in respect of a Relevant Service, that the service is a Designated Access Service or a Specified Service or is a service that is subject to a Telecom Registered Undertaking (regardless of whether there is a determination under Part 2 of the Act currently in force in respect of that service);

Relevant Network Access Service has the meaning given to that term in clause 18.2;

Relevant Services means:

- (a) Relevant Network Access Services; and
- (b) Relevant Wholesale Services;

Relevant Wholesale Service has the meaning given to that term in clause 45.2;

Required Telecom Business Unit means any of:

- (a) the ANS Unit;
- (b) the Wholesale Unit;
- (c) a Telecom Fixed Network Business Unit (other than the ANS Unit and the Wholesale Unit); and

- (d) the Retail Units;

Resale Equivalence means that, where Telecom provides a particular Resale Service that is a Relevant Wholesale Service to a Service Provider:

- (a) the service characteristics and functionality of the Resale Service must be the same as the service characteristics and functionality of the corresponding retail service except for:
 - (i) trivial differences;
 - (ii) differences relating to matters of national and crime-related security, physical security, security required to protect the integrity of the network, or any other security requirements agreed by Telecom and the Commission; and
- (b) the operational systems, processes and procedures used by Telecom to provide the Resale Service must give Service Providers the ability to provide End-Users with the same or a substantially similar service delivery experience (recognising that part of the service delivery experience is the responsibility of the Service Provider) to that experienced by Telecom's End-Users of the corresponding retail service; and
- (c) overall, the operational systems, processes, and procedures used by Telecom to provide the Resale Service must not place Service Providers at a material disadvantage, when compared to the operational systems, processes, and procedures used to provide the corresponding retail service to Telecom's End-Users;

Example

- (a) If the time taken by Telecom to physically provision a new Telecom Retail Homeline voice access service connection is, on average, 10 hours for Telecom's End-Users, then, in order to meet the Resale Equivalence standard, the time taken by Telecom to physically provision a new corresponding Homeline Resale Service connection must be, on average, 10 hours or less.
- (b) The service delivery experience of a Service Provider's End-User supplied with the Homeline Resale Service will be affected by the End-User's interaction with the Service Provider's sales staff (a part of the end-to-end delivery of service provided by the Service Provider alone). The Resale Equivalence standard allows the End-User's service delivery experience to be different to that of a Telecom Retail End-User if the Service Provider does not provide the same level of sales staff contact regarding the provision of the Homeline Resale Service as Telecom Retail when providing its Homeline Service.
- (c) The Resale Equivalence standard does not prevent Telecom from offering a service that is different by virtue of the wholesale relationship. For example, Telecom can provide an unbranded or "white label" Resale Service so that Service Providers are not forced to sell services that are branded as "Telecom" services.

Resale Service means the resale of any of the following Designated Access Services:

- (a) any Telecom retail service offered by means of Telecom's fixed telecommunications network;
- (b) any Telecom residential local access and calling service offered by means of Telecom's fixed telecommunications network;
- (c) any bundle of Telecom retail services offered by means of Telecom's fixed telecommunications network; and
- (d) any Telecom retail service offered by means of Telecom's fixed telecommunications network as part of a bundle of retail services; but

for the avoidance of doubt, Resale Service does not include that part of the end-to-end delivery of a service by a Service Provider to its End-Users carried out by the Service Provider alone;

Residential Services Price List or *RSPL* means the list of residential Resale Services and prices that was prepared by Telecom in accordance with the terms of Decision 525 and that is maintained in accordance with clause 64;

Retail Units means the unit or units referred to in clause 68;

Separation Day means 31 March 2008;

Service Provider has the meaning given to that term in the Act, but does not include Telecom;

Shared Services means the units or functional groups listed in Part 1 of Schedule 2;

Specified Service has the meaning given to that term in the Act;

Standard Terms Determination or *STD* means a standard terms determination made by the Commission under section 30M of the Act;

Subsidiary has the meaning given by sections 5 to 8 of the Companies Act 1993;

Support Office means the support office required to be established under clause 81;

Telecom means TCNZ and any of its Subsidiaries;

Telecom Business Unit means an operational business division of Telecom;

Telecom Fixed Network Business Units means the ANS Unit, the Wholesale Unit, and any business unit that controls fixed network assets predominantly used for the provision of Relevant Services (excluding Resale Services). For the avoidance of doubt:

- (a) Telecom Fixed Network Business Units does not include the Retail Units; and
- (b) if the business group that controls the relevant fixed network assets is a part of a Telecom Business Unit, then that part (and only that part) is a Telecom Fixed Network Business Unit;

Telecommunications Commissioner has the meaning given to that term in the Act;

TCNZ means Telecom Corporation of New Zealand Limited whose registered company number is 328287;

Tier 1, Tier 2, or Tier 3 site means a Telecom building that is listed as such in Schedule 3;

TSO Instrument has the meaning given to that term in the Act;

UBA Backhaul has the meaning given to that term in Schedule 1 of these Undertakings;

UCLL Backhaul has the meaning given to that term in Schedule 1 of these Undertakings;

Undertakings Implementation Programme Office or UIP Office means the programme office involved with implementing these Undertakings;

Wholesale Unit means the unit referred to in clause 42;

Working Day has the meaning given to that term in the Act.

1.2 In these Undertakings, unless the context requires otherwise:

- (a) *Equivalence of Inputs or EOI or EOI standard* means that, if Telecom is required to provide Service Providers with a Relevant Service:
 - (i) Telecom must provide itself and the Service Providers with the same service;
 - (ii) Telecom must deliver that service to itself and the Service Providers on the same time-scales and on the same terms and conditions (including price and service levels);

- (iii) Telecom must deliver that service to itself and the Service Providers by means of the same systems and processes (including operational support processes);
 - (iv) Telecom must provide itself and the Service Providers with the same Commercial Information about that service and those same systems and processes; and
 - (v) when providing that service to itself, Telecom must use systems and processes that Service Providers are able to use in the same way, and with the same degree of reliability and performance;
- (b) in subclause (a), *the same* means exactly the same, subject to:
- (i) trivial differences;
 - (ii) differences relating to:
 - (A) credit requirements and vetting procedures;
 - (B) payment procedures;
 - (C) matters of national and crime-related security, physical security, security required to protect the operational integrity of the network, or any other security requirements agreed by Telecom and the Commission;
 - (D) provisions relating to the termination of supply;
 - (E) provisions relating to dispute resolution (to the extent necessary because Telecom is one company);
 - (F) requirements for a safe working environment; and
 - (iii) differences that are agreed by Telecom and the Commission in writing;
 - (iv) differences that are requested in writing by a Service Provider and agreed to by Telecom;
 - (v) differences that are specified elsewhere in these Undertakings; and
 - (vi) differences relating to terms required by a residual terms determination under subpart 2A of Part 2 of the Act.

2 Interpretation

- 2.1 References in these Undertakings to Telecom's *Access Network, Local Access Network, or Regional Backhaul Network*:
- (a) include a reference to those networks as they may be modified or upgraded, or replaced in part, from time to time; but
 - (b) do not include a reference to a network of an entirely different type that is installed in substitution for any of those networks and that is not of a type that is referred to in the Access Network definition.
- 2.2 References in these Undertakings to Telecom being *required to provide Service Providers* with a Relevant Service will be interpreted in accordance with clause 6 and Telecom will only be required to provide Service Providers with a Relevant Service in the circumstances set out in clause 6.
- 2.3 References in these Undertakings to a *part of Telecom* includes, without limitation, a Telecom Business Unit.
- 2.4 References in these Undertakings to persons, bodies, roles, groups or units includes successor persons, bodies, roles, groups and units.
- 2.5 An example used in these Undertakings is only illustrative of the provisions to which it relates. It does not limit those provisions. If an example and a provision to which it relates are inconsistent, the provision prevails.
- 2.6 Any function or power of the Commission under these Undertakings must be performed or exercised:
- (a) by the Telecommunications Commissioner alone; or
 - (b) if the Telecommunications Commissioner requests the chairperson of the Commission to make 2 other members of the Commission available for the performance of a particular function and the chairperson agrees to that request, by the Telecommunications Commissioner and 2 other members of the Commission.
- 2.7 For the purpose of clause 2.6, if there is no Telecommunications Commissioner or if the Telecommunications Commissioner is for any reason unable to perform the functions or exercise the powers of the Commission that would otherwise have been performed or exercised by him or her under these Undertakings then those functions or powers must be performed or exercised by the chairperson of the Commission.

- 2.8 In these Undertakings, unless the context requires otherwise:
- (a) clause and part headings are for convenience only, and are not part of these Undertakings;
 - (b) references to clauses are references to clauses in these Undertakings;
 - (c) the singular includes the plural and vice versa;
 - (d) words denoting natural persons include any legal entity or association of entities and vice versa;
 - (e) reference to a statute means that statute as amended and re-enacted and includes subordinate legislation;
 - (f) except where these Undertakings expressly provide otherwise, reference to a document means that document as amended; and
 - (g) references in these Undertakings to *IP* means internet protocol.

PART 2: SCOPE AND APPLICATION

3 Application of Undertakings limited to New Zealand

These Undertakings only apply to Telecom in New Zealand. For the avoidance of doubt, Telecom will not use this limitation to circumvent the intent of these Undertakings.

4 Application of Undertakings limited to Relevant Services

Where these Undertakings refer to Telecom or a part of Telecom, the Undertakings only apply to Telecom or the part of Telecom (and to the extent applicable, the Employees, agents and contractors of Telecom or the part of Telecom) to the extent to which Telecom or the part of Telecom provides, purchases, or is otherwise involved with Relevant Services.

5 Application of Arm's-Length Rules limited to Relevant Services

The Arm's-Length Rules only apply to the extent to which any activities or decisions described in the Arm's-Length Rules relate to or affect Relevant Services.

Example

The Arm's-Length Rules will apply to interactions between the Wholesale Unit and the Retail Units in respect of Relevant Wholesale Services, such as unbundled bitstream access.

The Arm's-Length Rules will not apply to interactions between:

- (a) the Retail Units and Telecom Fixed Network Business Units in respect of services that are not Relevant Services, such as international services; or
- (b) the Retail Units and the Wholesale Unit in respect of services that are not Relevant Services, such as PSTN interconnection and Mobile Services.

6 Requirement to provide services to Service Providers limited

6.1 Nothing in these Undertakings requires Telecom to provide Service Providers with a Relevant Service (even if a Telecom Business Unit provides that service to another Telecom Business Unit) unless Telecom is required to provide the Relevant Service to a Service Provider under a determination made under Part 2 of the Act, a Telecom Registered Undertaking, or any other law.

6.2 For the avoidance of doubt, prior to receiving a Relevant Service, a Service Provider will have to:

- (a) be a party to a binding commercial service provision agreement with Telecom for the provision of that service;
- (b) have requested access to the service in accordance with a Standard Terms Determination;

- (c) have requested access to the service in accordance with a Telecom Registered Undertaking, where that Registered Undertaking provides sufficient terms and conditions to allow the service to be provided without the need for further terms and conditions to be agreed; or
- (d) be a party to a determination relating to that service issued by the Commission under section 27 of the Act where the determination provides sufficient terms and conditions to allow the service to be provided without the need for further terms and conditions to be agreed.

7 **Role of Board and CEO**

7.1 Nothing in these Undertakings limits:

- (a) the duty or role (or any decision, act or omission done in performing such duty or role) of the Board, any TCNZ director or the CEO, when exercising powers or performing duties as the Board, a TCNZ director or the CEO, to act in a manner that they, he or she believes is in the best interests of TCNZ; or
- (b) any decision, act or omission of Telecom or any part of Telecom (including any Employee, agent or contractor of Telecom or any part of Telecom) where that decision, act or omission is done to act in accordance with the directions of the Board or CEO, whether or not doing so would otherwise be contrary to these Undertakings.

7.2 If the Board or the CEO directs a Telecom Business Unit to act in a way that the Board or the CEO reasonably believes the relevant Telecom Business Unit could not, but for that direction, itself resolve to do in accordance with these Undertakings, the Board or CEO will:

- (a) give the direction in writing;
- (b) give a copy of the direction to the Commission and the IOG, as soon as practicable after the direction is given; and
- (c) certify to the Commission and the IOG that, in the Board's or the CEO's opinion:
 - (i) the direction is consistent with the robust operational separation of Telecom;
 - (ii) the reason that the direction is given is that it is in the best interests of Telecom as a whole; and
- (d) report to the Commission and the IOG on whether the direction undermines any of the purposes set out in paragraphs (a) to (c) of section 69A of the Act.

- 7.3 If the Board or the CEO participates in a significant decision of the ANS Unit in respect of a Relevant Network Access Service, or of the Wholesale Unit in respect of a Relevant Wholesale Service:
- (a) Telecom will provide the IOG with copies of any documentation provided to the Board or CEO that contains the formal recommendation (including relevant supporting documents, if any) and any documentation that records the different formal decision, if the decision relates to:
 - (i) an investment matter involving capital expenditure in excess of the delegated authority of the Manager of the ANS Unit or the delegated authority of the Manager of the Wholesale Unit (as applicable);
 - (ii) any material aspect of the development or introduction of a Relevant Network Access Service that will be provided to Service Providers;
 - (iii) any material change to the overall size and/or reach of the Access Network or to Access Network technologies; or
 - (iv) any matter that materially impacts on the operation of these Undertakings;
 - (b) in any other case, Telecom will provide the IOG with copies of any documentation (including relevant supporting documents, if any) provided to the Board or CEO that contains the formal recommendation and any documentation that records the different formal decision, if the IOG requests them; and
 - (c) Telecom will notify the Commission in writing as soon as practicable when documentation is provided to the IOG under clause 7.3(a) or (b).

7.4 For the avoidance of doubt, approving a recommendation made by the ANS Unit or the Wholesale Unit in respect of a Relevant Service is not participation in a decision for the purpose of clause 7.3.

7.5 Clause 7.3(a) does not apply to participation of the Board or the CEO in relation to the establishment of each year's annual and long-term corporate plan and technology plan (or equivalent documents) of the ANS Unit or the Wholesale Unit.

8 **Inconsistency**

If a provision in this Part 2 and a provision in another Part of these Undertakings are inconsistent, the provision in Part 2 prevails.

PART 3: IMPLEMENTATION

9 Compliance with these Undertakings

- 9.1 From the Separation Day, and except as otherwise provided for in clause 9.3, Telecom will comply with the requirements set out in the following clauses of these Undertakings:
- (a) clause 12, which requires the ANS Unit to be established;
 - (b) clause 18, which requires the ANS Unit to be responsible for providing the unbundled copper local loop service;
 - (c) clauses 25 and 38, which require the Manager of the ANS Unit to be appointed, and certain Telecom Employees to be Employees working for the ANS Unit;
 - (d) clause 27, to the extent that it requires an ANS Unit business plan for the balance of the 2007/08 financial year to be submitted to the Board;
 - (e) clause 30, which requires Employees, agents and contractors working for the ANS Unit to act in good faith and what they believe to be the best commercial interests of the ANS Unit within the ANS Unit's scope of business;
 - (f) clause 36.1, which requires the ANS Unit's accommodation to be access-controlled;
 - (g) clause 37.1, which requires Telecom to develop a separate brand for the ANS Unit;
 - (h) clause 43, which requires the Wholesale Unit to be established;
 - (i) clause 44.1, which requires the Wholesale Unit to have sufficient influence over certain assets;
 - (j) clauses 53 and 62, which require the Manager of the Wholesale Unit to be appointed, and certain Telecom Employees to be Employees working for the Wholesale Unit;
 - (k) clause 61, which requires the Wholesale Unit's accommodation to be access-controlled;
 - (l) clause 66 which requires the Wholesale Unit to undertake a consultation process relating to IP Interconnection;
 - (m) clause 67 which requires the Wholesale Unit to establish an NGN consultation programme;

- (n) clauses 77 and 78, which require the IOG to be established and its members appointed;
 - (o) clauses 81 and 82, to the extent that those clauses require the Support Office to be established and key staff to be appointed;
 - (p) clause 84.1(b), to the extent that it requires Telecom to prepare codes of conduct ready to be considered by the IOG; and
 - (q) clauses 34 and 59, which require the ANS Unit and the Wholesale Unit to manage Commercial Information in certain ways.
- 9.2 From 1 July 2008, Telecom will comply with all of the provisions of these Undertakings, except as otherwise provided for in clause 9.3.
- 9.3 The following transitional provisions apply to these Undertakings:
- (a) to the extent that clause 32 requires the ANS Unit to have written arrangements in place for the supply to other Telecom Business Units of Relevant Network Asset Services that the ANS Unit does not provide to Service Providers, Telecom will use its best endeavours to have those arrangements in place as soon as possible, but by no later than 31 December 2008;
 - (b) to the extent that clause 57 requires the Wholesale Unit to have written arrangements in place for the supply to the Retail Units of Relevant Wholesale Services that the Wholesale Unit does not provide to Service Providers, Telecom will use its best endeavours to have those arrangements in place as soon as possible, but by no later than 31 December 2008;
 - (c) to the extent that clause 96 requires arrangements with agents and contractors, Telecom will use its best endeavours to have those arrangements in place as soon as practicable but, subject to clause 9.4, by no later than 31 December 2008;
 - (d) to the extent that clause 97 requires Telecom to obtain the agreement from a person (whom Telecom has, prior to the Approval Date, contracted with to operate Telecom's assets or perform Telecom's functions or activities in respect of Relevant Services) to be subject to the same obligations as an Employee working for the Telecom Business Unit whose business is being outsourced under that contract, Telecom will use its best endeavours to have those arrangements in place as soon as practicable but, subject to clause 9.4, by no later than 31 December 2008;
 - (e) in relation to clauses 33, 58, 88.4(c) and 88.5(c), Telecom will ensure that in respect of access by Employees to information contained in

shared information systems (including those Telecom systems called ICMS, FAIMS, TCDATA, Probe, AXIOSS and TRIAD at the Approval Date) in the ordinary course of business:

- (i) from 1 July 2008 until 31 December 2009, any ANS Unit or Wholesale Unit Customer Confidential Information so accessed by Employees will not be used or disclosed in a manner that is contrary to these Undertakings;
 - (ii) by 30 September 2008, it has developed a plan for upgrading or migrating its shared information systems to meet the requirements in clause 9.3(iii), and provided that plan to the IOG;
 - (iii) by 31 December 2009, Telecom's shared information systems are upgraded to prevent ANS Unit and Wholesale Unit Customer Confidential Information being accessed by Employees in the ordinary course of business, except as expressly permitted by clauses 33, 58, 88.4 and 88.5;
- (f) to the extent that clause 38.1(f) requires Employees who are directly involved in providing legal or regulatory advice to the ANS Unit in respect of Relevant Network Access Services to be Employees working solely for the ANS Unit, Telecom will comply by no later than 1 July 2008; and
- (g) Telecom will comply with each of the following clauses by no later than the Working Day that is 30 Working Days after the Approval Date:
- (i) clauses 77 and 78, which require the IOG to be established and its members appointed;
 - (ii) clauses 81 and 82, to the extent that those clauses require the Support Office to be established and key staff to be appointed;
 - (iii) clause 84.1(b), to the extent that it requires Telecom to prepare codes of conduct ready to be considered by the IOG; and
 - (iv) clauses 34 and 59, which require the ANS Unit and the Wholesale Unit to manage Commercial Information in certain ways.

9.4 Under clause 9.3(c) or 9.3(d), an arrangement with a particular contractor or person to whom functions or activities have been outsourced that is necessary for Telecom to comply with clause 96 or 97, may be put in place after 31 December 2008 by a date specified by the Commission if, on application by Telecom, the Commission is satisfied that:

- (a) Telecom has used its best endeavours to put the arrangement in place as soon as practicable;

- (b) it would be impractical or unreasonably expensive to put the arrangement in place before 31 December 2008; and
 - (c) it will not undermine a robust operational separation of Telecom if the arrangement is not in place by 31 December 2008.
- 9.5 Nothing in these Undertakings derogates from the strict controls that Telecom already has in place in respect of the disclosure and use of wholesale customer confidential information, as required by Telecom's wholesale services agreements and interconnection agreements. Without limitation, from the Approval Date until 1 July 2008 these controls will continue to apply to protect wholesale customer confidential information from misuse.

10 **Variation of these Undertakings**

For the avoidance of doubt, these Undertakings may be varied in accordance with sections 69T to 69X of the Act.

PART 4: FIXED NETWORK ACCESS SERVICE BUSINESS UNIT (ANS UNIT)

11 Outline of Part 4

11.1 This Part contains undertakings that apply specifically to the fixed network access service business unit referred to in section 69D(1)(a)(i) of the Act.

11.2 The unit referred to in section 69D(1)(a)(i) of the Act is called the Access Network Services Unit or ANS Unit in these Undertakings.

12 Establishment of the ANS Unit

Telecom will establish and maintain the ANS Unit.

13 Scope of business of the ANS Unit

13.1 At the Separation Day, the scope of business of the ANS Unit is to:

- (a) control and operate the Access Network in order to provide Relevant Network Access Services;
- (b) provide Relevant Network Access Services to Telecom Business Units and Service Providers; and
- (c) perform all other ANS Unit functions specified in Part 4 of these Undertakings,

in each case in accordance with these Undertakings.

13.2 The Board or the CEO may change the ANS Unit's scope of business from time to time provided that:

- (a) the scope of business is not reduced from that provided in clause 13.1;
- (b) the Board or the CEO gives written notice of any material change to the IOG and the Commission; and
- (c) the change is consistent with the robust operational separation of Telecom.

14 The ANS Unit will control the Access Network

14.1 The ANS Unit will control the Access Network and the operation of that network.

14.2 Unless the context requires otherwise:

Access Network means Telecom's Local Access Network and Telecom's Regional Backhaul Network;

Local Access Network:

- (a) means all lines between the network demarcation point at an End-User's premises (or, where relevant, the building distribution frames) and the local telephone exchange distribution frame or optical fibre distribution frame or equivalent facility; and
- (b) includes:
 - (i) all cables and lines, including aerial and buried customer lead-ins from the network demarcation point at the End-User's premises, sub-loop, loop and feeder copper, and optical fibre cables;
 - (ii) the following infrastructure and buildings:
 - (A) poles, ducts, and manholes;
 - (B) towers, distribution cabinets, and buildings that are predominantly used to house equipment that forms part of the access network;
 - (C) power and building services equipment in the distribution cabinets and buildings referred to in subparagraph (B); and
 - (iii) all Fixed Wireless Access Systems (*Fixed End Points*) including multi-access radio systems, and microwave systems that are used for backhaul between the points referred to in paragraph (a);
 - (iv) all copper-pair gain and loop conditioning systems, but not including the terminal multiplex equipment;
 - (v) all passive and active optical fibre equipment between the network demarcation point at an End-User's premises (or, where relevant, the building distribution frames) and the distribution frame or equivalent facility, including the distribution frame or equivalent facility, but not including the optical termination equipment, optical line terminals, PSTN switch, ethernet aggregation switch, or edge router equipment if that equipment is not connected through a distribution frame;

- (vi) all copper and optical distribution frames (including main distribution frames, building distribution frames, cabinet-based frames, and intermediate distribution frames) that are predominantly used for the access network; and
 - (vii) those information technology support systems that are necessary to ensure the efficient operation, maintenance, and provisioning of the access network and the current and future services that are provided by the ANS Unit, except to the extent that they are provided by Shared Services; but
- (c) does not include:
- (i) service nodes, including DSLAMs, multi-service nodes, PSTN switches, or other similar devices that are used to deliver value-added services to End-Users and that are not required for the normal operation of the access network;
 - (ii) customer premises wiring;
 - (iii) customer premises equipment;
 - (iv) any equipment or facilities that are located in, or exclusively used to provide services to, any areas outside of New Zealand; or
 - (v) any Dual-Use Cellular Wireless Systems and any Cellular Mobile Systems;

Regional Backhaul Network:

- (a) means, in geographic areas that are served by a Tier 1 or Tier 2 site, all copper, fixed wireless, and optical fibre transmission systems that are predominantly used to provide connections from a Service Provider's equipment that is located at a distribution cabinet (or equivalent facility) to the nearest Tier 1 or Tier 2 site; and
- (b) means, in all other areas, all copper, fixed wireless, and optical fibre transmission systems that are predominantly used to provide connections from a Service Provider's equipment that is located at a local telephone exchange or distribution cabinet (or equivalent facility) to the nearest Tier 3 site; but
- (c) does not include any equipment or facilities that are located in, or exclusively used to provide services to, the Chatham Islands or any areas outside New Zealand.

- 14.3 All arrangements between the ANS Unit and other parts of Telecom or other persons that provide for the ANS Unit to control the Access Network and the operation of that network will be in writing, including all the terms of the arrangement, including price or appropriate transfer charges (if any).
- 14.4 The ANS Unit will provide a copy of any written arrangements entered into in accordance with clause 14.3 to the IOG as soon as practicable after the arrangement is entered into, and after there has been any material change to that arrangement.

15 **The ANS Unit's use of Dual-Use Cellular Wireless Systems**

- 15.1 Where a Telecom Dual-Use Cellular Wireless System is in an area where there is no Telecom Local Access Network or where the ANS Unit wishes to use the Dual-Use Cellular Wireless System as a substitute for Telecom's Local Access Network then:
- (a) the ANS Unit will have an unrestricted entitlement, at its discretion, to use that system as an alternative to or substitute for Telecom's Local Access Network in that area for the purpose of offering local access services, and will have sufficient control over that system to enable it to do so;
 - (b) any service that the ANS Unit provides that exclusively or mainly uses those systems will be a Relevant Network Access Service; and
 - (c) the ANS Unit will make a commercial variant of the UCLL Backhaul service (from the relevant telephone exchange to Telecom's nearest interconnect point) available to Service Providers in accordance with clause 31 for the purpose of providing regional backhaul for Service Providers' fixed wireless access systems. For the avoidance of doubt, the terms and conditions for provision of a commercial variant of UCLL Backhaul provided under this clause may differ from any terms and conditions for UCLL Backhaul determined by the Commission under Part 2 of the Act to appropriately reflect the different technical and operational requirements of backhaul for fixed wireless access systems.
- 15.2 All arrangements between the ANS Unit and other parts of Telecom entered into for the purpose of clause 15.1 will be in writing, including all the terms of the arrangement, including price or appropriate transfer charges (if any).
- 15.3 The ANS Unit will provide a copy of any written arrangements entered into in accordance with clause 15.2 to the IOG as soon as practicable after the arrangement is entered into, and after there has been any material change to that arrangement.

16 The ANS Unit will have sufficient influence over other assets

16.1 The ANS Unit will have sufficient influence over any Telecom network assets that are not under its control but that are used to provide Relevant Network Access Services to the extent required to provide those services in accordance with these Undertakings.

Example

A Service Provider may require backhaul to beyond the coverage of Telecom’s Regional Backhaul Network. In particular, one of the Regulated LLU backhaul services requires Telecom to provide backhaul beyond the coverage area of the Access Network. The ANS Unit will provide that backhaul service. Therefore, in all cases where the Service Provider requires backhaul to beyond Telecom’s Regional Backhaul Network, the ANS Unit will need to obtain core network transmission capacity from another Telecom Business Unit.

16.2 All arrangements between the ANS Unit and other parts of Telecom or other persons entered into for the purpose of clause 16.1 will be in writing, including all the terms of the arrangement, including price or appropriate transfer charges (if any).

16.3 The ANS Unit will provide a copy of any written arrangements entered into in accordance with clause 16.2 to the IOG as soon as practicable after the arrangement is entered into, and after there has been any material change to that arrangement.

17 Responsibilities of the ANS Unit in relation to the Access Network

The ANS Unit will, without limitation, be responsible for:

- (a) building, maintaining, operating, and repairing Telecom’s Access Network;
- (b) making investment decisions relating to Telecom’s Access Network;
- (c) determining which services Telecom’s Access Network must be capable of supporting; and
- (d) determining what enhancements to the functionality of Telecom’s Access Network are appropriate.

18 The ANS Unit will provide Relevant Network Access Services

18.1 The ANS Unit will provide Relevant Network Access Services.

18.2 In these Undertakings, unless the context requires otherwise, *Relevant Network Access Services*:

- (a) means any current or future fixed telecommunications services that are delivered exclusively or mainly by use of assets that form part of Telecom's Access Network; and
- (b) includes any service that is deemed to be a Relevant Network Access Service under clause 15.1(b); but
- (c) does not include:
 - (i) Relevant Wholesale Services;
 - (ii) interconnection with Telecom's Fixed PSTN, or interconnection with a Fixed PSTN other than Telecom's, including any national network transport or network transit or other services provided in the usual course of PSTN interconnection arrangements;
 - (iii) any Designated Multinetwork Services; or
 - (iv) to avoid doubt, any Mobile Services.

Example

The ANS Unit will provide local loop unbundling, local loop unbundling co-location, and local loop unbundling backhaul (including both distribution cabinet to telephone exchange and telephone exchange to interconnect point). The ANS Unit is not required to supply HSNS because, while this service is delivered using assets that form part of the Access Network, material service layer assets are also used in the delivery of HSNS.

18.3 The ANS Unit will publish a list of all Relevant Network Access Services that the ANS Unit makes available to Service Providers on its Internet website, and will update that list as soon as practicable after a new Relevant Network Access Service becomes available for provision to Service Providers.

19 Specific responsibilities of the ANS Unit in relation to Relevant Network Access Services

The ANS Unit will be responsible for the following matters in respect of Relevant Network Access Services, taking into account any matters that have been determined by the Commission under Part 2 of the Act:

- (a) service management;
- (b) providing a wholesale sales function (including sales to other Telecom Business Units);
- (c) product management and marketing;
- (d) network performance management;

- (e) specification of the services and their functionality;
- (f) deployment of services, including design, construction, testing, and commissioning;
- (g) service-related procurement processes; and
- (h) setting of terms, including prices.

20 **Fibre to the Premises Access Service**

The ANS Unit will manage any FTTP Access Network Architecture assets that form part of Telecom's Local Access Network in a way that:

- (a) is consistent with its obligations under these Undertakings; and
- (b) enables the Wholesale Unit to deliver an FTTP Access Service in accordance with its obligations in clause 65.

21 **Standard of equivalence for Relevant Network Access Services**

21.1 Except as provided in clause 22, if the ANS Unit is required to provide Service Providers with a Relevant Network Access Service it will provide that service to the EOI standard:

- (a) for all Relevant Network Access Services that the ANS Unit is required to provide Service Providers with at the Approval Date, and for UCLL Backhaul, in accordance with the commitments contained in the applicable migration plan (including timeframes) set out in Schedule 1; and
- (b) for all Relevant Network Access Services that the ANS Unit becomes required to provide Service Providers with after the Approval Date (other than UCLL Backhaul), in accordance with the binding commitments contained in a migration plan (including timeframes) developed in accordance with clause 21.2 and approved by the Commission.

21.2 If clause 21.1(b) applies, Telecom will propose a migration plan (including timeframes) for approval by the Commission that provides:

- (a) that, where the service is covered by a determination issued by the Commission under section 27 of the Act or a Standard Terms Determination, the ANS Unit will make the service available to Service Providers (at the highest level of equivalence that is practicable in the circumstances) on the launch date specified in the determination issued by the Commission under section 27 of the Act or the Standard Terms Determination (as applicable) for that service;

- (b) if the Commission considers that the service cannot be provided to the EOI standard from the date that Telecom is first required to provide Service Providers with the service, when and how the service will be migrated to the EOI standard; and
- (c) if appropriate, when and how Telecom will migrate downstream services to consume the service.

21.3 A migration plan proposed by Telecom under clause 21.2:

- (a) will normally be expected to require Telecom to provide the service in accordance with the December 2009 Requirements by 31 December 2009, and the EOI standard by 31 December 2011;
- (b) will not include any variation to the Undertakings. If Telecom considers that a variation to the Undertakings is required as a result of a migration plan proposed under clause 21.2, then the appropriate mechanism is for Telecom to endeavour to agree such a variation with the Minister in accordance with sections 69T to 69X of the Act; and
- (c) may be amended by the Commission before it is approved if:
 - (i) following reasonable consultation with Telecom, the Commission does not consider it appropriate to approve the migration plan as proposed by Telecom; and
 - (ii) following that consultation, the Commission then gives Telecom 20 Working Days notice of its intention to amend (including details of the amendments) and approve the migration plan and Telecom does not submit an amended plan that is acceptable to the Commission before the end of that 20 Working Day period.

Example

Telecom has only been able to include EOI migration plans in Schedule 1 for Relevant Network Access Services that it:

- (a) is currently required to provide Service Providers with; or
- (b) knows it will soon be required to provide Service Providers with (where it has a reasonable understanding of what the service will consist of).

If Telecom becomes required to provide Service Providers with another Relevant Network Access Service (such as sub-loop UCLL) in the future, a new EOI migration plan will need to be developed for this service, and Telecom will need to get this plan approved by the Commission.

22 Different standards of equivalence for newly Regulated Relevant Network Access Services

If a Relevant Network Access Service is Regulated after the Approval Date and the Minister, following consultation with Telecom, accepts a recommendation

from the Commission that a particular different standard of equivalence to the EOI standard should apply to the service, then:

- (a) that particular standard of equivalence will apply to that service;
- (b) the ANS Unit will make the recommendation and information about its effect available to the public at all reasonable times on the ANS Unit's Internet website; and
- (c) if the ANS Unit is required to provide Service Providers with that service, it will provide that service on the applicable standard of equivalence in accordance with a migration plan (including timeframes) approved by the Commission in accordance with clauses 21.2 and 21.3.

23 **The ANS Unit will build services ready for Equivalence of Inputs standard**

23.1 The ANS Unit will build all new Relevant Network Access Services (and associated systems) that it is not required to provide Service Providers with at the Approval Date in such a manner as to ensure that Service Providers can purchase those services from the ANS Unit to the EOI standard (or, if applicable, the relevant standard of equivalence required by clause 22) immediately or as soon as practicable thereafter in the event that the ANS Unit becomes required to provide Service Providers with the services.

Example

If the ANS Unit decides to build a new Relevant Network Access Service, then the ANS Unit must build that service in a manner that will enable it to be supplied to the EOI standard as quickly as possible in the event that the ANS Unit becomes required to provide Service Providers with the service. This will most likely mean that the ANS Unit will build that new service in a manner that ensures it is compatible with and makes use of the 12 EOI building blocks described in Schedule 1.

23.2 Clause 23.1 is subject to any minor exceptions agreed by the Commission for a particular Relevant Network Access Service.

Example

Telecom may seek agreement from the Commission that the ANS Unit build a new service in a manner that is not consistent with achieving the EOI standard as soon as practicable where:

- (a) the service is expected to only be supplied to another part of Telecom; or
- (b) the service is expected to only be supplied to a particular Service Provider.

It is acknowledged that the Commission will consider each request for an exception to clause 23.1 on a case-by-case basis, and may or may not agree to an exception in these situations.

24 The ANS Unit will act on a stand-alone basis and at arm's-length

24.1 In respect of Relevant Services, the ANS Unit will operate on a stand-alone basis, at arm's-length from any other Telecom Business Unit.

24.2 The ANS Unit will:

- (a) have relationships, dealings, and transactions with other Telecom Business Units in respect of Relevant Services that do not include elements that parties in their respective positions would usually omit, and that do not omit elements that parties in their respective positions would usually include, if:
 - (i) the parties were acting independently;
 - (ii) one party (the ANS Unit) was acting on a stand-alone basis;
 - (iii) the parties were acting at arm's-length; and
- (b) in respect of Relevant Services, comply with the other Arm's-Length Rules that apply to the ANS Unit.

24.3 For the avoidance of doubt, clause 24.2 does not apply in respect of any arrangements put in place for the purpose of complying with clause 94.

25 Separate management and reporting lines for the ANS Unit

25.1 Telecom will ensure that, at all times, one person is appointed to have responsibility for the management of the ANS Unit.

25.2 The Manager of the ANS Unit will:

- (a) work solely on matters relating to the ANS Unit and not have responsibility for other parts of Telecom;
- (b) manage the ANS Unit in a way designed to secure compliance with the provisions of these Undertakings that apply to the ANS Unit and to optimise the commercial interests of the ANS Unit in accordance with the ANS Unit's scope of business; and
- (c) report directly to the CEO.

26 Employees working for the ANS Unit will not work for any other part of Telecom

26.1 No Employee working for the ANS Unit may work for any other part of Telecom.

26.2 Clause 26.1 does not prevent the ANS Unit from doing technical or operational work for another part of Telecom where:

- (a) the ANS Unit and that part have entered into a written agreement for the ANS Unit to do that work on commercial terms;
- (b) the written agreement and the work covered by the agreement comply with the Arm's-Length Rules and do not circumvent the intent of these Undertakings; and
- (c) Telecom provides a copy of the written agreement to the IOG as soon as practicable after the agreement has been entered into, and after there has been any material change to the agreement.

Example

The ANS Unit and the Wholesale Unit may wish to enter into an agreement for ANS Unit Employees located in exchanges to do maintenance work on Wholesale Unit DSLAMs located in those exchanges. The ANS Unit and the Wholesale Unit must ensure that:

- (a) the agreement is entered into on commercial terms that are recorded in writing;
- (b) the agreement ensures that any restrictions on the sharing of ANS Unit or Wholesale Unit Commercial Information and Confidential Information and any other applicable Arm's-Length Rules are complied with;
- (c) the work covered by the agreement is actually done by ANS Unit Employees in a manner that complies with the information sharing restrictions and all of the applicable Arm's-Length Rules;
- (d) the agreement as a whole and the actual doing of work covered by that agreement are consistent with the intent of the Undertakings; and
- (e) the agreement is provided to the IOG and the IOG is kept informed whenever the agreement changes.

If it wished to do so, the ANS Unit could enter into an agreement with a Service Provider to do maintenance work on the Service Provider's DSLAMs that are located in ANS Unit exchanges.

27 Setting the ANS Unit annual and long-term corporate plans and technology plans

27.1 Each year the ANS Unit will develop and submit to the Board annual and long-term corporate plans and technology plans (or equivalent documents) of the ANS Unit for the Board to approve, amend or otherwise deal with as the Board sees fit (provided that the Board complies with the requirements of clause 7). Such plans may comprise those parts of Telecom plans that relate to the ANS Unit. The CEO may participate in the development of the ANS Unit's annual and long-term corporate plans and technology plans (or equivalent documents).

27.2 The ANS Unit will provide the IOG with:

- (a) a copy of any plan approved by the Board under clause 27.1; and
- (b) certification from the Board and CEO that the plan provided under (a) above, and their involvement in the development of that plan, complies

with the Undertakings and is consistent with a robust operational separation of Telecom.

28 Implementation of plans and day-to-day management

28.1 The ANS Unit will be solely responsible for:

- (a) the implementation of the ANS Unit's annual and long-term corporate plans and technology plans approved by the Board; and
- (b) the day-to-day management of the ANS Unit within the ANS Unit's scope of business.

28.2 The Board and the CEO will certify annually that the ANS Unit has sufficient resources to enable the Manager of the ANS Unit to manage the ANS Unit in accordance with clause 28.1.

28.3 The delegation of authority to the Manager of the ANS Unit:

- (a) at the Approval Date is outlined in Schedule 4;
- (b) cannot be decreased from the delegation outlined in Schedule 4; and
- (c) will not be less than a standard Telecom level 2 (i.e. a direct operational report to the CEO) delegation.

28.4 Whenever Telecom makes a material change to the delegation to the Manager of the ANS Unit, Telecom will notify the IOG and the Commission of the change.

28.5 Telecom will ensure that the delegation to the Manager of the ANS Unit will be sufficient to allow him or her to manage the ANS Unit in accordance with clause 28.1.

29 Formulation of the ANS Unit's Commercial Policies

The ANS Unit will formulate its own Commercial Policies in respect of Relevant Network Access Services.

30 The ANS Unit will act in its own best interests

All ANS Unit Employees, agents and contractors will act in good faith and in what they believe to be in the best commercial interests of the ANS Unit within the ANS Unit's scope of business when making decisions on behalf of the ANS Unit in respect of Relevant Network Access Services.

31 The ANS Unit will not discriminate

31.1 When doing or omitting to do anything in respect of the provision of a Relevant Network Access Service, the ANS Unit (including its Employees, agents and contractors) will not discriminate between Service Providers and other Telecom Business Units or between Service Providers.

31.2 For the avoidance of doubt:

- (a) clause 31.1 does not prevent the ANS Unit from doing or omitting to do something in respect of the provision of a Relevant Network Access Service that is different for different recipients of that service where those differences reflect the different requirements of the recipients;
- (b) clause 31.1 is subject to clause 6; and
- (c) this clause does not limit clauses 21 or 22.

32 The ANS Unit's trading arrangements

32.1 If the ANS Unit provides a Relevant Network Access Service to another Telecom Business Unit, the provision of that service to that Telecom Business Unit will be governed by a written arrangement that sets out the terms of supply, including price or appropriate transfer charges.

32.2 The ANS Unit will provide a copy of a written arrangement entered into for the purpose of clause 32.1 to the IOG as soon as practicable after the arrangement is entered into, and after there has been a material change to that arrangement.

33 The ANS Unit's Customer Confidential Information

33.1 The ANS Unit (including its Employees, agents and contractors) will not disclose ANS Unit Customer Confidential Information to any other part of Telecom unless the Service Provider to which the information relates consents.

33.2 Notwithstanding clause 33.1, the ANS Unit may disclose ANS Unit Customer Confidential Information to another part of Telecom where that disclosure:

- (a) is necessary operationally to enable the ANS Unit to provide a Relevant Service in accordance with these Undertakings;
- (b) is made in order to transfer an order for a Relevant Service from the ANS Unit to the Wholesale Unit (or vice versa) in accordance with arrangements made to comply with clause 94; or
- (c) is permitted under clause 91.

33.3 If ANS Unit Customer Confidential Information is disclosed under clause 33.2(a) or (b), the person to whom the information is disclosed may disclose the information to another person only if disclosure:

- (a) by the ANS Unit to that person would be permitted under clause 33.2; or
- (b) is otherwise permitted by these Undertakings.

33.4 Any person who receives ANS Unit Customer Confidential Information under clause 33.3 may disclose that information to another person only if disclosure of the information to that other person would be permitted under clause 33.3. For the purposes of this clause 33, that other person will be deemed to have received the information under clause 33.3.

33.5 If ANS Unit Customer Confidential Information is disclosed under clauses 33.2(a), 33.2(b), 33.3 or 33.4, the person to whom the information is disclosed will maintain the confidentiality of the information and will ensure that the information is destroyed or kept secure so that people who are not entitled to receive that information under these Undertakings are not able to access it.

34 The ANS Unit's Commercial Information

34.1 The ANS Unit (including its Employees, agents and contractors) will not disclose ANS Unit Commercial Information in respect of a Relevant Network Access Service to any other part of Telecom unless that information is also made available on an equal basis to all Eligible Service Providers in respect of that Relevant Service.

34.2 Notwithstanding clause 34.1, the ANS Unit may disclose ANS Unit Commercial Information to another part of Telecom where that disclosure:

- (a) relates to Relevant Network Access Services that the ANS Unit is not required to provide Service Providers with and that the ANS Unit is not providing to a Service Provider and has not yet decided to provide to Service Providers;
- (b) is necessary operationally to enable the ANS Unit to provide a Relevant Service in accordance with these Undertakings;
- (c) is made in order to transfer an order for a Relevant Service from the ANS Unit to the Wholesale Unit (or vice versa) in accordance with arrangements made to comply with clause 94; or
- (d) is permitted under clause 90.

34.3 If ANS Unit Commercial Information is disclosed under clause 34.2(b) or (c), the person to whom the information is disclosed may disclose the information to another person only if disclosure:

- (a) by the ANS Unit to that person would be permitted under clause 34.2; or
- (b) is otherwise permitted by these Undertakings.

34.4 Any person who receives ANS Unit Commercial Information under clause 34.3 may disclose that information to another person only if disclosure of the information to that other person would be permitted under clause 34.3. For the purposes of this clause 34, that other person will be deemed to have received the information under clause 34.3.

34.5 If ANS Unit Commercial Information is disclosed under clauses 34.2(b), 34.2(c), 34.3 or 34.4, the person to whom the information is disclosed will maintain the confidentiality of the information and will ensure that the information is destroyed or kept secure so that people who are not entitled to receive that information under these Undertakings are not able to access it.

35 **The ANS Unit's incentive arrangements**

35.1 All incentive remuneration for Employees working for the ANS Unit will reflect solely the objectives and performance of the ANS Unit and can include the personal performance of the Employees in their roles as Employees working for the ANS Unit.

35.2 The remuneration for Employees working for the ANS Unit will not comprise any Telecom shares or any incentives that are directly or indirectly linked to Telecom's overall performance.

35.3 Clauses 35.1 and 35.2 apply to both short-term incentive schemes (such as annual bonuses) and long-term incentive and remuneration schemes.

35.4 Clauses 35.1 to 35.3 do not prevent Employees working for the ANS Unit:

- (a) from participating in Telecom's group-wide Employee benefit arrangements that are not directly or indirectly linked to Telecom's overall performance; or

Example

Employees working for the ANS Unit may purchase discounted health insurance arranged by Telecom and offered to all Telecom Employees.

- (b) who have previously worked for another part of Telecom from retaining any incentive remuneration or entitlement received as a result of his or her work for the other part of Telecom.

36 The ANS Unit's accommodation

- 36.1 All Employees working for the ANS Unit will be located in access-controlled accommodation that is separately secured from all other parts of Telecom.
- 36.2 No later than 12 months after the Separation Day all Employees working for the ANS Unit will be located in accommodation that is separately located from all other parts of Telecom.
- 36.3 Notwithstanding clause 36.2 an Employee working for the ANS Unit is not required to be located in separate accommodation if:
- (a) the Employee works in a place where the ANS Unit does not have a significant number of Employees; and
 - (b) the Commission has agreed, on application by Telecom, that:
 - (i) it would be impractical or unreasonably expensive to comply with the requirement in clause 36.2 in relation to that Employee; and
 - (ii) appropriate alternative procedures are in place in relation to the Employee in order to ensure compliance with the Arm's-Length Rules that apply to the ANS Unit.

37 The ANS Unit's branding

- 37.1 The ANS Unit will develop, and only use, its own separate brand. The separate brand for the ANS Unit:
- (a) will not include the word Telecom; and
 - (b) may be used in proximity to an endorsement containing either the word Telecom or the Telecom logo, or both, but only if that endorsement is secondary to the ANS brand.
- 37.2 The separate brand for the ANS Unit developed under clause 37.1 will be implemented progressively within the timeframe agreed by Telecom and the IOG.

38 Employees working solely for the ANS Unit

- 38.1 The following Employees will work solely for the ANS Unit:
- (a) all Employees who are directly involved in the provision, installation, maintenance, fault restoration, and repair of Telecom's Access Network, except to the extent that those persons work for Shared Services;

- (b) all Employees who are directly involved in the planning, design, implementation, and in-life service management of Relevant Network Access Services, except to the extent that those persons work for Shared Services;
- (c) all Employees who are directly involved in providing a wholesale sales function in respect of Relevant Network Access Services, except to the extent that those persons work for the Wholesale Unit and are involved with the provision of this sales function in order to comply with arrangements made in accordance with clause 94;
- (d) the managers of the Employees referred to in paragraphs (a) to (c) (excluding the managers of Employees who work for Shared Services or the Wholesale Unit) up to and including the Manager of the ANS Unit;
- (e) those Employees who carry out activities that are ancillary to those described in any of paragraphs (a) to (c) except to the extent that those persons work for Shared Services or the Wholesale Unit; and
- (f) all Employees who are directly involved in providing legal or regulatory advice to the ANS Unit in respect of Relevant Network Access Services.

38.2 Clause 38.1 does not prevent the ANS Unit from doing technical or operational work for another part of Telecom in accordance with clause 26.2.

39 **Consultation about changes to the Access Network**

39.1 If the ANS Unit consults with a Required Telecom Business Unit before making any significant decision in relation to:

- (a) changes to Telecom's Access Network;
- (b) changes to the specifications or functionality of any Relevant Network Access Service that the ANS Unit provides to Service Providers; or
- (c) the introduction of any new Relevant Network Access Service that the ANS Unit intends (at the time) to provide to Service Providers or any variant of an existing Relevant Network Access Service that the ANS Unit provides to Service Providers;

and that decision may affect a Service Provider's use or experience of a Relevant Network Access Service, then the ANS Unit will also consult with the affected Service Providers.

39.2 The ANS Unit will ensure that the extent and timing of consultation under clause 39.1 will be comparable in effect for each Required Telecom Business Unit and affected Service Provider.

40 **Other Relevant Network Access Services that Telecom chooses to provide**

If the ANS Unit chooses to provide a Service Provider with a Relevant Network Access Service that it is not required to provide Service Providers with, then the ANS Unit will provide that service to the Service Provider on commercial terms in accordance with the non-discrimination undertaking in clause 31.

41 **Process for ANS Unit requests**

The ANS Unit will establish a process for making, considering, advising, and implementing decisions about requests in respect of Relevant Network Access Services and/or the Access Network, whereby:

- (a) all persons who have or seek access to Relevant Network Access Services (whether other Telecom Business Units or Service Providers) use the same request form;
- (b) the process is substantially the same for all those persons, in like circumstances; and
- (c) the process is subject to oversight by the IOG, including reviewing whether requests have been dealt with in accordance with the process.

PART 5: WHOLESALE BUSINESS UNIT

42 Outline of Part 5

- 42.1 This Part contains undertakings that apply specifically to the one or more Telecom Business Units referred to in section 69D(1)(a)(ii) of the Act that must provide a wholesale function for all Relevant Services (except to the extent that a wholesale function is provided by the ANS Unit).
- 42.2 The Telecom Business Unit or Units referred to in section 69D(1)(a)(ii) of the Act are together called the Wholesale Unit in these Undertakings.

43 Establishment of the Wholesale Unit

- 43.1 Telecom will establish and maintain the Wholesale Unit.
- 43.2 For the avoidance of doubt:
- (a) if Telecom chooses to include the Wholesale Unit as part of a Telecom Business Unit, then the obligations in these Undertakings that apply to the Wholesale Unit only apply to that part; and
 - (b) the Wholesale Unit will not be part of the ANS Unit or a Retail Unit.

44 Wholesale Unit will have sufficient influence over relevant assets

- 44.1 The Wholesale Unit is not required to control any assets. However, the Wholesale Unit will have sufficient influence over any Telecom network assets that it does not control (excluding assets controlled by ANS) but that are used to provide Relevant Wholesale Services to the extent necessary to provide those services in accordance with these Undertakings.
- 44.2 All arrangements between the Wholesale Unit and another Telecom Business Unit or other persons that provide for the Wholesale Unit to have influence over Telecom network assets will be in writing, including all the terms of the arrangement, including price or appropriate transfer charges (if any).
- 44.3 The Wholesale Unit will provide a copy of any written arrangement entered into in accordance with clause 44.2 to the IOG, as soon as practicable after the arrangement is entered into, and after there has been any material change to that arrangement.

45 Wholesale Unit will provide Relevant Wholesale Services

- 45.1 The Wholesale Unit will provide Relevant Wholesale Services.

45.2 In these Undertakings, unless the context requires otherwise, *Relevant Wholesale Services*:

- (a) means:
- (i) in relation to Resale Services, only those services that are included in DSPL or RSPL, including any replacement or successor services that are added to DSPL or RSPL in accordance with clause 64, and any Resale Services that are covered by a future determination under Part 2 of the Act;
 - (ii) all other Designated Access Services and Specified Services (regardless of whether there is a determination under Part 2 of the Act currently in force in relation to that service), including, for the avoidance of doubt, any IP interconnection services that become Designated Access Services or Specified Services after the Approval Date;
 - (iii) any fixed network service that is subject to a Telecom Registered Undertaking;
 - (iv) all packet-based bitstream services (and their associated functions, including operational support systems) that enable access to, and interconnection with, that part of Telecom's NGN that connects the End-User's building (or, where relevant, the building distribution frames) to Telecom's first aggregation switch (or equivalent facility) other than a DSLAM (or equivalent facility);
 - (v) from 1 January 2009, IP Interconnection for Voice Services and IP Interconnection for Virtual Private Network Services; but

Example

Telecom's HSNS service and the FTTP Access Service are services that are covered by clause 45.2(a)(iv).

- (b) does not include:
- (i) Relevant Network Access Services;
 - (ii) any Resale Services that have been grandfathered in accordance with clause 64 as at 31 December 2009;
 - (iii) as soon as Telecom meets the December 2009 Requirements, any Resale Service based on a new retail service first offered after the Approval Date (and that would otherwise be a

replacement or successor service to a Resale Service in DSPL or RSPL in accordance with clause 64) and that consumes a Wholesale Unit input service that is provided in accordance with the December 2009 Requirements, unless that new service is subject to a current determination under Part 2 of the Act, and provided that Telecom complies with its obligations under clause 64.5 in relation to the DSPL or RSPL service that the new service would otherwise be a replacement or successor service for;

Example

At the end of 2009, Telecom will provide a new retail broadband service that will consume as an input a UBA service that is being supplied to both Service Providers and the Retail Units in accordance with the December 2009 Requirements (which, among other things, requires supply of the same service). When Telecom provides this retail broadband service to Telecom End-Users, the Wholesale Unit will not be required to resell the retail broadband service under these Undertakings unless the Commission makes a determination under Part 2 of the Act for resale of that service. Telecom will need to comply with its obligations under clause 64.5 in relation to continued supply of the resale version of the existing retail Xtra broadband service in certain circumstances.

- (iv) any Resale Service that Telecom is required to provide under clause 45.2(a)(i) which is no longer controlled by Telecom including, for the avoidance of doubt, the product families called additional/enhanced directory listings, directory assistance, and international directory assistance at the Approval Date;

Example

Following the sale of the Yellow Pages Group, Telecom no longer controls the additional/enhanced directory listings, directory assistance or international directory assistant product families.

- (v) the Designated Access Service of interconnection with Telecom's Fixed PSTN or the Designated Access Service of interconnection with a Fixed PSTN other than Telecom's including, for the avoidance of doubt, any national network transport or network transit or other services provided in the usual course of PSTN interconnection arrangements;
- (vi) any Designated Multinetwork Services; or
- (vii) for the avoidance of doubt, any Mobile Services.

Example

The Wholesale Unit will provide unbundled bitstream access, unbundled bitstream backhaul and those Resale Services that are listed in DSPL or RSPL (subject to a few limited exceptions).

45.3 In these Undertakings, *NGN* means a packet-based fixed network:

- (a) which is able to:

- (i) provide telecommunications services;
 - (ii) make use of multiple broadband and quality of service-enabled transport technologies; and
- (b) in which service-related functions are independent of underlying transport-related technologies.

45.4 The Wholesale Unit will publish a list of all Relevant Wholesale Services that the Wholesale Unit makes available to Service Providers on its Internet website, and will update that list as soon as practicable after a new Relevant Wholesale Service becomes available for provision to Service Providers.

46 **Specific responsibilities of the Wholesale Unit in relation to Relevant Wholesale Services**

46.1 The Wholesale Unit will be responsible for the following matters in respect of Relevant Wholesale Services, taking into account any matters that have been determined by the Commission under Part 2 of the Act:

- (a) service management;
- (b) providing a wholesale sales function (including sales to other Telecom Business Units);
- (c) product management and marketing;
- (d) network performance management, to the extent that the Wholesale Unit controls the relevant assets;
- (e) design and specification of the services and their functionality;
- (f) service-related procurement processes; and
- (g) setting of terms, including prices.

46.2 For the avoidance of doubt, clause 46.1 does not apply to a Resale Service that is a Relevant Wholesale Service to the extent that the Retail Units are responsible for these matters when developing and providing the corresponding retail service.

47 Wholesale Unit will provide certain Relevant Wholesale Services to an Equivalence of Inputs standard

47.1 Except as provided in clauses 47.2, 48 and 49, if the Wholesale Unit is required to provide Service Providers with a Relevant Wholesale Service, it will provide that service on the EOI standard:

- (a) for all Relevant Wholesale Services that the Wholesale Unit is required to provide Service Providers with at the Approval Date, and for UBA Backhaul, in accordance with the commitments contained in the applicable migration plan (including timeframes) set out in Schedule 1; and
- (b) for all Relevant Wholesale Services that the Wholesale Unit becomes required to provide Service Providers with after the Approval Date (other than UBA Backhaul) in accordance with the binding commitments contained in a migration plan (including timeframes) developed in accordance with clause 47.2 and approved by the Commission.

47.2 Except as provided in clause 48, if clause 47.1(b) applies, Telecom will propose a migration plan (including timeframes) for approval by the Commission that provides:

- (a) that, where the service is covered by a determination issued by the Commission under section 27 of the Act or a Standard Terms Determination, the Wholesale Unit will make the service available to Service Providers (at the highest level of equivalence that is practicable in the circumstances) on the launch date specified in the determination issued by the Commission under section 27 of the Act or Standard Terms Determination (as applicable) for that service;
- (b) if the Commission considers that the service cannot be provided to the EOI standard from the date that Telecom is first required to provide Service Providers with the service, when and how the service will be migrated to the EOI standard; and
- (c) if appropriate, when and how Telecom will migrate downstream services to consume the service.

47.3 A migration plan proposed by Telecom under clause 47.2:

- (a) will normally be expected to require Telecom to provide the service in accordance with the December 2009 Requirements by 31 December 2009, and the EOI standard by 31 December 2011;
- (b) will not include any variation to or departures from the Undertakings. If Telecom considers that a variation to the Undertakings is required as a result of a migration plan proposed under clause 47.2, then Telecom will

endeavour to agree such a variation with the Minister in accordance with sections 69T to 69X of the Act; and

- (c) may be amended by the Commission before it is approved if:
 - (i) following reasonable consultation with Telecom, the Commission does not consider it appropriate to approve the migration plan as proposed by Telecom; and
 - (ii) following that consultation, the Commission then gives Telecom 20 Working Days notice of its intention to amend (including details of the amendments) and approve the migration plan and Telecom does not submit an amended plan that is acceptable to the Commission before the end of that 20 Working Day period.

Example

Telecom has only been able to include EOI migration plans in Schedule 1 for Relevant Wholesale Services that it:

- (a) is currently required to provide Service Providers with; and
- (b) knows it will soon be required to provide Service Providers with (where it has a reasonable understanding of what the service will consist of).

If Telecom becomes required to provide Service Providers with another Relevant Wholesale Service (such as a new UBA variant) in the future, a new EOI migration plan will need to be developed for this service, and Telecom will need to get this plan approved by the Commission.

48 Wholesale Unit will provide Resale Services to the Resale Equivalence standard

48.1 The standard of equivalence that applies to Resale Services that are Relevant Wholesale Services, is the Resale Equivalence standard. The Wholesale Unit will meet the Resale Equivalence development milestones set out in Schedule 1 and will provide Resale Services that are Relevant Wholesale Services on the Resale Equivalence standard by 31 December 2009.

48.2 Notwithstanding clause 48.1 the Resale Equivalence standard does not apply to a Resale Service if:

- (a) the Wholesale Unit and the Service Provider have agreed to the application of a different standard;
- (b) subject to clause 48.3, 500 or fewer instances of the Resale Service are provisioned for Service Provider End-Users; or
- (c) subject to clause 48.3, there are no End-Users purchasing the comparable retail service;

and in each case, the Commission has been advised of the application of the different standard and has not objected to it. In these circumstances the relevant different standard will apply.

- 48.3 If either clause 48.2(b) or 48.2(c) apply, and the Commission has been advised of the application of the different standard and has not objected to it, the Resale Service must be provided at a standard that is no worse than the standard of provision as at the Approval Date which, for the avoidance of doubt, will be consistent with clause 5(c) of Schedule 1, part 1, subpart 1 of the Act.
- 48.4 If Telecom is notified of any failure to meet the Resale Equivalence standard or any other standard of equivalence required by this clause, it will have a reasonable amount of time (as set by the Commission following consultation with Telecom) to meet that standard provided that:
- (a) Telecom takes all reasonable steps during that period to try to achieve compliance; and
 - (b) the failure to meet the standard is inadvertent.
- 48.5 Telecom will not be in breach of these Undertakings to the extent that clause 48.4 applies.

49 **Different standards of equivalence for newly Regulated Relevant Wholesale Services**

If a Relevant Wholesale Service is Regulated after the Approval Date, and the Minister, following consultation with Telecom, accepts a recommendation from the Commission that a particular different standard of equivalence to EOI or Resale Equivalence should apply to that service, then:

- (a) that particular different standard of equivalence will apply to that service;
- (b) the Wholesale Unit will make the recommendation and information about its effect available to the public at all reasonable times on the Wholesale Unit's Internet website; and
- (c) if the Wholesale Unit is required to provide Service Providers with that service, it will provide that service on the applicable standard of equivalence in accordance with a migration plan (including timeframes) approved by the Commission in accordance with clauses 47.2 and 47.3.

50 Wholesale Unit will build services ready for Equivalence of Inputs standard

50.1 The Wholesale Unit will build all new Relevant Wholesale Services (and associated systems) that it is not required to provide Service Providers with at the Approval Date in such a manner as to ensure that Service Providers can purchase those services from the Wholesale Unit to the EOI standard (or, if applicable, the relevant other standard of equivalence required by clause 48 or 49) immediately or as soon as practicable thereafter in the event that the Wholesale Unit becomes required to provide Service Providers with the service.

Example

If the Wholesale Unit decides to build a new Relevant Wholesale Service (such as a new UBA variant), then the Wholesale Unit must build that service in a manner that will enable it to be supplied to the EOI standard as quickly as possible in the event that the Wholesale Unit becomes required to provide Service Providers with the service. This will most likely mean that the Wholesale Unit will build that new service in a manner that ensures it is compatible with and makes use of the 12 EOI building blocks described in Schedule 1.

50.2 Notwithstanding clause 50.1, the Wholesale Unit is not required to build or procure the build of a Relevant Wholesale Service after the Approval Date in such a way that will allow the service to be provided to the EOI standard where:

- (a) the service is built specifically at the request of a particular Service Provider, and it is reasonably expected that Telecom and other Service Providers will not wish to use that service. In such circumstances, the service will be built in a manner that will allow it to be provided at the standard required by the relevant Service Provider; or
- (b) the service is one that Telecom reasonably expects that it will not meaningfully consume itself because of the particular characteristics of the service, and therefore the EOI standard is not appropriate because it cannot be measured or applied in such circumstances. In such circumstances, the Relevant Service will be built in a manner that will allow it to be supplied on fair and reasonable terms in accordance with the non-discrimination undertaking in clause 56.

50.3 Without limiting clause 50.2, clause 50.1 is subject to any minor exceptions agreed by the Commission.

51 Other Relevant Services that Wholesale Unit chooses to provide

If the Wholesale Unit chooses to provide a Service Provider with a Relevant Wholesale Service that it is not required to provide Service Providers with, then the Wholesale Unit will provide that service to the Service Provider on commercial terms in accordance with the non-discrimination undertaking in clause 56.

52 **Wholesale Unit will act at arm's-length from the Retail Units**

52.1 In respect of Relevant Wholesale Services, the Wholesale Unit will operate at arm's-length from the Retail Units.

52.2 The Wholesale Unit will:

- (a) have relationships, dealings, and transactions with the Retail Units in respect of Relevant Services that do not include elements that parties in their respective positions would usually omit, and that do not omit elements that parties in their respective positions would usually include, if:
 - (i) the parties were acting independently;
 - (ii) the parties were acting at arm's-length; and
- (b) in respect of Relevant Services, comply with the other Arm's-Length Rules that apply to the Wholesale Unit.

52.3 The purpose of this clause 52.3 is to:

- (a) enable reasonable interaction between the Wholesale Unit and the Retail Units in order to enable the Retail Units to develop new retail services that are based on non-Regulated packet-based bitstream services; and
- (b) facilitate innovation in a way that is most efficient and consistent with the way other Service Providers would develop services that are not Regulated.

In order to achieve this purpose, the Arm's-Length Rules in clauses 52.1, 52.2, 59 and 88.5 do not apply to interactions between the Wholesale Unit and a Retail Unit in respect of a non-Regulated packet-based bitstream service (and its associated functions, including operational support systems) that is a Relevant Wholesale Service as described in clause 45.2(a)(iv) until that Retail Unit offers a service that consumes the non-Regulated packet-based bitstream service on a commercial basis (which excludes bona fide trials undertaken as part of the retail service development). For the avoidance of doubt, this clause must not be used in a way that undermines a robust operational separation of Telecom.

52.4 For the avoidance of doubt, clauses 52.1, 52.2, 70.1 and 70.2 will not require the Wholesale Unit to have trading or other purchase arrangements with the Retail Units for obtaining services, information or inputs from Retail Units that are required for the Wholesale Unit to provide Resale Services.

- 52.5 The Arm's-Length Rules that apply to the Wholesale Unit and the Retail Units under clauses 52.1, 52.2, 70.1 and 70.2 will be applied in a manner that will enable the Wholesale Unit to:
- (a) obtain the information or advice needed from the Retail Units to provide Resale Services, including information and advice in relation to:
 - (i) price changes;
 - (ii) service change, grandfathering or withdrawal notifications;
 - (iii) technical provision details;
 - (iv) terms and conditions, policies, user guides, collateral, business rules or service delivery rules; and
 - (b) participate in the development of Retail Unit services to the extent necessary to be able to develop the corresponding Resale Service; and
 - (c) have access to the Retail Units' assets that are required to provide Resale Services.

53 Separate management and reporting lines for the Wholesale Unit

- 53.1 Telecom will ensure that, at all times, one person is appointed to have responsibility for the management of the Wholesale Unit. Where the Wholesale Unit is part of a Telecom Business Unit this person will be the manager of that Telecom Business Unit.
- 53.2 Telecom has discretion to determine the title of the position of the Manager of the Wholesale Unit.
- 53.3 The Manager of the Wholesale Unit will:
- (a) not have any responsibility for the ANS Unit or any of the Retail Units (but may also have responsibility for any other Telecom Business Unit);
 - (b) manage the Wholesale Unit in a way designed to secure compliance with the provisions of these Undertakings that apply to the Wholesale Unit; and
 - (c) report directly to the CEO.

54 Employees working for the Wholesale Unit will not work for the Retail Units

- 54.1 No Employee working for the Wholesale Unit may work for any of the Retail Units.

54.2 Clause 54.1 does not prevent the Wholesale Unit from doing technical or operational work for a Retail Unit where:

- (a) the Wholesale Unit and the Retail Unit have entered into a written agreement for the Wholesale Unit to do that work on commercial terms;
- (b) the agreement and the work covered by the agreement comply with the Arm's-Length Rules and do not circumvent the intent of these Undertakings; and
- (c) Telecom provides a copy of the written agreement to the IOG as soon as practicable after the agreement has been entered into, and after there has been any material change to the agreement.

55 **Wholesale Unit will formulate own Commercial Policies**

The Wholesale Unit will formulate its own Commercial Policies in respect of Relevant Wholesale Services. In formulating any Commercial Policy for a Resale Service that is a Relevant Wholesale Service, the Wholesale Unit may take into account the direct consequences that arise from the Resale Service being based on a corresponding retail service.

Example

There are a number of direct consequences of the voice access and calling Resale Service being based on the Retail Unit's Homeline service:

- (a) the price of the Resale Service is calculated by deducting a fixed wholesale discount from an average of the retail price points for the Homeline service;
- (b) the characteristics of the Resale Service, including the inclusion of local calling, are determined by the Homeline service.

There are Commercial Policies about the voice access and calling Resale Service that are not a direct consequence of the service being based on the Homeline service. For example, the payment terms are determined by the Wholesale Unit.

56 **Wholesale Unit will not discriminate**

56.1 When doing or omitting to do anything in respect of the provision of a Relevant Wholesale Service, the Wholesale Unit (including its Employees, agents and contractors) will not discriminate between Service Providers and Retail Units or between Service Providers.

56.2 For the avoidance of doubt:

- (a) clause 56.1 does not prevent the Wholesale Unit from doing or omitting to do something in respect of the provision of a Relevant Wholesale Service that is different for different recipients of that service where those differences reflect the different requirements of the recipients;
- (b) clause 56.1 is subject to clause 6; and

(c) this clause does not limit clauses 47 to 49.

57 Wholesale Unit's trading arrangements with the Retail Units

57.1 If the Wholesale Unit provides a Relevant Wholesale Service to a Retail Unit, the provision of that service to that Retail Unit will be governed by a written arrangement that sets out the terms of supply, including price or appropriate transfer charges.

57.2 The Wholesale Unit will provide a copy of any written arrangement entered into for the purpose of clause 57.1 to the IOG as soon as practicable after the arrangement is entered into, and after there has been a material change to that arrangement.

58 Wholesale Unit's Customer Confidential Information

58.1 The Wholesale Unit (including its Employees, agents and contractors) will not disclose Wholesale Unit Customer Confidential Information to any other part of Telecom, unless the Service Provider to which the information relates consents.

58.2 Notwithstanding clause 58.1, the Wholesale Unit may disclose Wholesale Unit Customer Confidential Information to another part of Telecom where that disclosure:

- (a) is necessary operationally to enable the Wholesale Unit to provide a Relevant Service in accordance with these Undertakings;
- (b) is made in order to transfer an order for a Relevant Service from the Wholesale Unit to the ANS Unit (or vice versa) in accordance with arrangements made to comply with clause 94; or
- (c) is permitted under clauses 91 or 100.

58.3 If Wholesale Unit Customer Confidential Information is disclosed under clause 58.2(a) or 58.2(b), the person to whom the information is disclosed may disclose the information to another person only if disclosure:

- (a) by the Wholesale Unit to that other person would be permitted under clause 58.2; or
- (b) is otherwise permitted by these Undertakings.

58.4 Any person who receives Wholesale Unit Customer Confidential Information under clause 58.3 may disclose that information to another person only if disclosure of the information to that other person would be permitted under clause 58.3. For the purposes of this clause 58, that other person will be deemed to have received the information under clause 58.3.

58.5 If Wholesale Unit Customer Confidential Information is disclosed under clauses 58.2(a), 58.2(b), 58.3 or 58.4, the person to whom the information is disclosed will maintain the confidentiality of the information and will ensure that the information is destroyed or kept secure so that people who are not entitled to receive that information under these Undertakings are not able to access it.

59 **Wholesale Unit's Commercial Information**

59.1 The Wholesale Unit (including its Employees, agents and contractors) will not disclose Wholesale Unit Commercial Information in respect of a Relevant Wholesale Service to any other part of Telecom unless that information is also made available on an equal basis to all Eligible Service Providers in respect of that Relevant Service.

59.2 Notwithstanding clause 59.1, the Wholesale Unit may disclose Wholesale Unit Commercial Information to another part of Telecom where that disclosure:

- (a) relates to a Relevant Wholesale Service that the Wholesale Unit is not required to provide Service Providers with and that the Wholesale Unit is not providing to a Service Provider and has not yet decided to provide to Service Providers;
- (b) is necessary operationally to enable the Wholesale Unit to provide a Relevant Service in accordance with these Undertakings;
- (c) is made in order to transfer an order for a Relevant Service from the Wholesale Unit to the ANS Unit (or vice versa) in accordance with arrangements made to comply with clause 94; or
- (d) is permitted under clauses 90 or 100.

59.3 If Wholesale Unit Commercial Information is disclosed under clause 59.2(b) or 59.2(c), the person to whom the information is disclosed may disclose the information to another person only if disclosure:

- (a) by the Wholesale Unit to that other person would be permitted under clause 59.2; or
- (b) is otherwise permitted by these Undertakings.

59.4 Any person who receives Wholesale Unit Commercial Information under clause 59.3 may disclose that information to another person only if disclosure of the information to that other person would be permitted under clause 59.3. For the purposes of this clause 59, that other person will be deemed to have received the information under clause 59.3.

59.5 If Wholesale Unit Commercial Information is disclosed under clauses 59.2(b), 59.2(c), 59.3 or 59.4, the person to whom the information is disclosed will

maintain the confidentiality of the information and will ensure that the information is destroyed or kept secure so that people who are not entitled to receive that information under these Undertakings are not able to access it.

60 **Wholesale Unit's incentive arrangements**

- 60.1 All incentive remuneration for Employees working for the Wholesale Unit will reflect solely the objectives and performance of the Wholesale Unit and, if Telecom wishes, any other Telecom Business Unit (other than the ANS Unit) that manages the provision of wholesale services to Service Providers, and can include the personal performance of the Employees in their roles as Employees working for those units.
- 60.2 The remuneration for Employees working for the Wholesale Unit will not comprise any incentives that are directly or indirectly linked to Telecom's overall performance.
- 60.3 Notwithstanding clauses 60.1 and 60.2, the long-term incentive and remuneration schemes for Employees working for the Wholesale Unit may include Telecom shares provided that:
- (a) the extent to which those schemes comprise Telecom shares is in accordance with the description in Schedule 5 (or any modification notified to the IOG in accordance with clause 60.3(c));
 - (b) the proportion of Telecom shares is not higher than the proportion of Telecom shares for the equivalent schemes for Employees working for the Retail Units; and
 - (c) Telecom notifies the IOG and the Commission of any changes to Schedule 5.
- 60.4 Notwithstanding clauses 60.1 and 60.2, the Manager of the Wholesale Unit or an Employee who reports directly to the Manager of the Wholesale Unit (other than an Employee who is responsible for Relevant Wholesale Services only) may receive incentive remuneration annually that depends on performance measures that relate to the performance of Telecom as a group in the relevant year, so long as the value of that incentive remuneration:
- (a) in the case of the Manager of the Wholesale Unit, is less than 50% of the value of his or her total annual incentive remuneration;
 - (b) in the case of the Manager of the Wholesale Unit, is less than 30% of the value of his or her total annual remuneration including base salary and incentive remuneration;
 - (c) in the case of an Employee who reports directly to the Manager of the Wholesale Unit (other than an Employee who is responsible for Relevant

Services only), is less than 15% of the value of his or her total annual incentive remuneration;

(d) in the case of an Employee who reports directly to the Manager of the Wholesale Unit (other than an Employee who is responsible for Relevant Services only), is less than 10% of the value of his or her total annual remuneration including base salary and incentive remuneration; and

(e) complies with the incentive remuneration requirement in clause 60.5.

60.5 Telecom intends to build a dynamic wholesale services business that is focused on the needs of its customers who purchase Relevant Wholesale Services and other wholesale services, and is a driving force in the industry. Accordingly, for the purpose of clause 60.4, incentive remuneration that depends on performance measures that relate to the performance of Telecom as a group will be less than incentive remuneration that depends on performance measures that relate to the performance of the Wholesale Unit and if Telecom wishes, any other Telecom Business Unit (other than the ANS Unit) that manages the provision of wholesale services to Service Providers.

60.6 Clause 60.1 and 60.2 do not prevent:

(a) Employees working for the Wholesale Unit from participating in Telecom's group-wide Employee benefit arrangements that are not directly or indirectly linked to Telecom's overall performance; or

Example

Employees working for the Wholesale Unit may purchase discounted health insurance arranged by Telecom and offered to all Telecom Employees.

(b) Employees working for the Wholesale Unit who have previously worked for another part of Telecom from retaining any incentive remuneration or entitlement received as a result of his or her work for the other part of Telecom.

60.7 For the avoidance of doubt, an Employee who reports directly to the Manager of the Wholesale Unit and who is only responsible for Relevant Wholesale Services must not receive any incentive remuneration that depends on performance measures that relate to the performance of Telecom as a group.

60.8 Telecom will ensure that the use of incentive remuneration that depends on performance measures that relate to the performance of Telecom as a group in accordance with clause 60.4 does not undermine a robust operational separation of Telecom.

60.9 For the avoidance of doubt, for the purpose of determining compliance with clauses 60.4 and 60.5:

- (a) the value of any Telecom shares offered to any Employee in accordance with clause 60.3 will be determined at the date of the offer to that Employee; and
- (b) the fact that incentive remuneration offered or received under clause 60.3 is denominated in Telecom shares does not of itself mean that such incentive remuneration is incentive remuneration that depends on performance measures that relate to the performance of Telecom as a group.

61 Accommodation for the Wholesale Unit

61.1 All Employees working for the Wholesale Unit will be located in access-controlled accommodation that is separately secured from the Retail Units.

61.2 Notwithstanding clause 61.1, an Employee working for the Wholesale Unit is not required to be located in access-controlled accommodation that is separately secured from the Retail Units if:

- (a) the Employee works in a place where the Wholesale Unit does not have a significant number of Employees; and
- (b) the Commission has agreed, on application by Telecom, that:
 - (i) it would be impractical or unreasonably expensive to comply with the requirement in clause 61.1 in relation to that Employee; and
 - (ii) appropriate alternative procedures are in place in relation to the Employee in order to ensure compliance with the Arm's-Length Rules that apply to the Wholesale Unit.

62 Employees working for the Wholesale Unit

62.1 The Employees referred to in clause 62.2 will be either:

- (a) Employees who work solely for the Wholesale Unit; or
- (b) Employees who work solely for the Wholesale Unit and any other Telecom Business Unit (other than the ANS Unit) that manages the provision of wholesale services to Service Providers.

62.2 The Employees are:

- (a) all Employees who are directly involved in the management of the planning, design, implementation, and in-life service management of Relevant Wholesale Services except to the extent that:

- (i) these functions are carried out by a Retail Unit by virtue of the fact that the Resale Services that are Relevant Wholesale Services are based on a corresponding retail service; and
 - (ii) those persons work for Shared Services;
- (b) all Employees who are directly involved in providing a wholesale sales function in respect of Relevant Wholesale Services except to the extent that those persons work for the ANS Unit and are involved with the provision of this sales function in order to comply with arrangements made in accordance with clause 94; and
 - (c) the managers of the Employees referred to in paragraphs 62.2(a) and (b) (other than, for the avoidance of doubt, Employees working for a Retail Unit, Shared Services or the ANS Unit), up to and including the Manager of the Wholesale Unit.

62.3 Clause 62.1 does not prevent the Wholesale Unit from doing technical or operational work for Retail Units in accordance with clause 54.2.

63 Legal and regulatory Employees working for Wholesale Unit

63.1 Only the following Employees will be directly involved in providing legal or regulatory advice to the Wholesale Unit in respect of Relevant Wholesale Services:

- (a) Employees of Telecom working solely for the Wholesale Unit;
- (b) Employees of Telecom working solely for the Wholesale Unit and any other Telecom Business Unit (other than the ANS Unit and the Retail Units); or
- (c) Employees of Telecom working solely for Group Legal Services or Group Regulatory.

63.2 Group Legal Services and Group Regulatory will operate as follows to the extent that its members are directly involved in providing legal or regulatory advice to the Wholesale Unit in respect of Relevant Wholesale Services:

- (a) all Employees of Group Legal Services and Group Regulatory who are directly involved in providing legal or regulatory advice to the Wholesale Unit in respect of Relevant Wholesale Services will be primarily accountable to the Manager of the Wholesale Unit for the advice that they provide to the Wholesale Unit; and
- (b) strict Chinese walls will be maintained between Employees directly involved in providing legal or regulatory advice in respect of Relevant Wholesale Services-related issues to the Wholesale Unit and Employees

who provide advice to a Retail Unit on the same or a related issue, including a rule that legal and regulatory staff that advise one of those units on an issue in respect of Relevant Wholesale Services cannot also advise the other unit on that issue or any related issue.

64 Telecom will maintain DSPL and RSPL

- 64.1 Telecom will maintain and update DSPL and RSPL in accordance with the terms of the Commission's Wholesale Determinations as if all of the Commission's Wholesale Determinations were still in force, subject to any amendments agreed between the parties to those determinations and subject to Telecom's right to exclude replacement and successor services in accordance with clause 45.2(b)(iii).
- 64.2 The requirement in clause 64.1 includes an obligation on Telecom to have DSPL and RSPL audited.
- 64.3 To avoid doubt, this clause only requires DSPL and RSPL to be maintained for the purposes of these Undertakings and does not have the effect of bringing back into force any Commission Wholesale Determination that has expired.
- 64.4 Before 31 December 2008, the Wholesale Unit will launch a comprehensive consultation programme with Service Providers on the likely impact of clause 45.2(b)(iii) and any transitional arrangements Telecom might put in place to manage that impact.
- 64.5 If the Wholesale Unit proposes to withdraw or grandfather a Resale Service that will not be replaced or succeeded by another Resale Service because clause 45.2(b)(iii) applies, Telecom will:
- (a) give Eligible Service Providers in respect of that Resale Service at least 6 months' prior notice of the withdrawal or grandfathering of that service;
 - (b) continue to provide the Resale Service as if it had not been withdrawn or grandfathered for at least 3 months' after the corresponding retail service is first withdrawn or grandfathered; and
 - (c) if a Service Provider applies to the Commission for determination of the resale of a retail service that would, but for clause 45.2(b)(iii), have been a replacement or successor service of that Resale Service, or the Commission requests a standard terms proposal from Telecom for resale of that retail service, by the earlier of:
 - (i) 3 months after notification of the withdrawal or grandfathering of the Resale Service; or
 - (ii) 31 December 2010;

continue to provide the Resale Service until the Commission has made a determination under section 27 of the Act or a Standard Terms Determination.

65 **FTTP Access Services**

- 65.1 The Wholesale Unit will provide a FTTP Access Service to the Retail Units and Service Providers in areas where Telecom has deployed an FTTP Access Network Architecture.
- 65.2 As soon as practicable after the Approval Date, the Wholesale Unit will consult with the Retail Units and Service Providers on the exact nature and design of the FTTP Access Service and the date on which it will be made available to Service Providers and the Retail Units.
- 65.3 The Wholesale Unit will provide the FTTP Access Service on commercial terms in accordance with the non-discrimination undertaking in clause 56.
- 65.4 For the avoidance of doubt, nothing in these Undertakings requires the Wholesale Unit to provide a FTTP Access Service to a Service Provider if the Service Provider refuses to provide Telecom with a similar service in any part of New Zealand where the Service Provider is capable of providing Telecom with a service that is materially the same as Telecom's FTTP Access Service and:
- (a) there are no differences between Telecom and the Service Provider that objectively justify the Service Provider refusing to provide the similar service to Telecom. For the avoidance of doubt, differences that are a result of the geographic location, scale or scope of the Service Provider's FTTP Network Access Architecture or the Service Provider will not be considered to objectively justify a Service Provider's refusal to provide a similar service;
 - (b) Telecom agrees to be provided with the similar service on materially similar terms and conditions;
 - (c) Telecom has requested in writing to be provided with the similar service; and
 - (d) it is in keeping with these Undertakings.
- 65.5 Any FTTP Access Service that Telecom has agreed to provide to a Service Provider at the Approval Date:
- (a) is not the FTTP Access Service for the purpose of clause 65.1; and
 - (b) can continue to be offered by Telecom irrespective of any requirements of this clause 65.

Example

At the Approval Date Telecom will have agreed to provide an FTTP Network Access Service in a few fibre-only subdivisions.

66 Service IP Interconnection consultation

66.1 Service IP Interconnection is, in general terms, the exchange of service level traffic between a Service Provider's NGN and Telecom's NGN for the purpose of ensuring service completion for IP-based services. The approach to Service IP Interconnection, including IP peering arrangements, remains the subject of industry discussion in New Zealand and internationally.

66.2 As soon as practicable after Separation Day, the Wholesale Unit (which has traditionally had a role in facilitating service level interconnection with Telecom's Fixed PSTN) will undertake a comprehensive consultation process with Service Providers about, as a minimum, the following matters:

- (a) the approach to Service IP Interconnection between Service Provider's NGN networks and Telecom's NGN network for conversational IP voice services which originate in one party's network and terminate in another's, including the development of an IP Interconnection for Voice Service;
- (b) whether it is appropriate for additional elements of Service IP Interconnection for conversational IP voice services to be made a Relevant Wholesale Service and, if so, how the Arm's-Length Rules should be applied to that additional Relevant Wholesale Service;
- (c) the process for transitioning from service level Fixed PSTN interconnection for voice services to Service IP Interconnection for voice services including the possible use of interim service level Fixed PSTN to IP NGN interconnection arrangements;
- (d) the introduction of Service IP Interconnection between Service Provider's NGN networks and Telecom's NGN network for the linking of End-Users' virtual private networks including the development of an IP Interconnection for Virtual Private Network Service; and
- (e) whether it is appropriate for additional elements of Service IP Interconnection for the linking of End-Users' virtual private networks to be made a Relevant Wholesale Service and, if so, how the Arm's-Length Rules should be applied to that additional Relevant Wholesale Service.

This consultation will take into account evolving international standards and international best practice on these matters.

66.3 The scope of the consultation regarding the interconnection services described in clauses 66.2(a) and (d) will, at a minimum, include:

- (a) service definitions;
- (b) commercial model;
- (c) technical standards;
- (d) operational standards; and
- (e) timetable for service introduction.

66.4 The Wholesale Unit will endeavour to get the Telecommunications Carriers Forum ("TCF") to agree to facilitate the consultation process required by clauses 66.2 and 66.3 and will by 4 April 2008 present a comprehensive Service IP Interconnection Consultation Project Proposal ("Consultation Proposal") to the TCF Board requesting the establishment of a working party to be the vehicle for the consultation. The Consultation Proposal will comply with all applicable TCF practices regarding project proposals and the formation and operation of working parties and will specify, at a minimum, the following elements:

- (a) the subjects to be consulted on, which will include those required by clauses 66.2 and 66.3;
- (b) that the target deliverables of the Consultation Proposal will be:
 - (i) an interim report to the TCF's Board prior to 31 December 2008;
 - (ii) a final report to the TCF's Board prior to 31 July 2009; and
- (c) that participation will be open to all interested Service Providers;
- (d) that the working party will operate with an independent chair; and
- (e) that the Commission and Ministry of Economic Development will be invited to participate in any manner they deem appropriate.

66.5 If the TCF agrees to facilitate the consultation process in the manner contemplated by clause 66.4, then following delivery of the interim report referred to in 66.4(b)(i), the Wholesale Unit will, by 1 February 2009, develop and publish on the Wholesale Unit's Internet website a plan for delivery of the IP Interconnection for Voice Service and IP Interconnection for Virtual Private Network Service.

66.6 If as part of the consultation process required by clauses 66.2 and 66.3 the Wholesale Unit and Service Providers agree:

- (a) that it is appropriate for additional elements of Service IP Interconnection for conversational IP voice services or the linking of End-

Users' virtual private networks to be made a Relevant Wholesale Service;
and

- (b) how the Arm's-Length Rules should be applied to that additional Relevant Wholesale Service,

then Telecom will notify the Minister of the things that were agreed and endeavour to agree a variation to the Undertakings to reflect those things in accordance with sections 69T to 69X of the Act.

66.7 Following completion of the consultation process required by clauses 66.2 and 66.3 the Wholesale Unit will, by 31 August 2009, develop and publish on the Wholesale Unit's Internet website a plan for addressing the matters listed in clause 66.3.

66.8 Where the Wholesale Unit provides Service IP Interconnection to Service Providers, it will do so on commercial terms that are fair and reasonable in the circumstances.

66.9 For the avoidance of doubt, nothing in these Undertakings requires:

- (a) Telecom to provide Service IP Interconnection to a Service Provider if the Service Provider refuses to provide Telecom with a similar service on commercial terms that are fair and reasonable in the circumstances; or
- (b) a particular industry-wide approach to Service IP Interconnection.

66.10 The TCF, the Ministry of Economic Development and the Commission can, at their discretion, determine what role they wish to take in the Service IP Interconnection consultation process to be undertaken by the Wholesale Unit under this clause.

67 **NGN consultation**

Before Separation Day, the Wholesale Unit will establish a comprehensive industry-wide NGN consultation programme.

PART 6: RETAIL UNITS

68 Outline of Part 6

68.1 This Part contains further undertakings that apply specifically to the one or more business units referred to in section 69D(1)(a)(iii) of the Act that must provide one or more other functions.

68.2 The undertakings in this Part only apply to a unit or units referred to in section 69D(1)(a)(iii) of the Act that provide a retail function, which are together called the Retail Units in these Undertakings.

69 Retail Units need not control any specific assets or provide any specific services

These Undertakings do not require the Retail Units to:

- (a) control any specific assets; or
- (b) provide any specific services.

70 Retail Units will act at arm's-length from Telecom Fixed Network Business Units

70.1 In respect of Relevant Services, the Retail Units will operate at arm's-length from each Telecom Fixed Network Business Unit.

70.2 The Retail Units will:

- (a) have relationships, dealings, and transactions with any Telecom Fixed Network Business Unit in respect of Relevant Services that do not include elements that parties in their respective positions would usually omit, and that do not omit elements that parties in their respective positions would usually include, if:
 - (i) the parties were acting independently;
 - (ii) the parties were acting at arm's-length; and
- (b) in respect of Relevant Services, comply with the other Arm's-Length Rules that apply to the Retail Units.

71 Employees working for the Retail Units may not work for certain other units

71.1 No Employee working for a Retail Unit may work for any Telecom Fixed Network Business Unit.

71.2 Clause 71.1 does not prevent the Retail Unit from doing technical or operational work for a Telecom Fixed Network Business Unit where:

- (a) the Retail Unit and the Telecom Fixed Network Business Unit have entered into a written agreement for the Retail Unit to do that work on commercial terms;
- (b) the agreement and the work covered by the agreement comply with the Arm's-Length Rules and do not circumvent the intent of these Undertakings; and
- (c) Telecom provides a copy of the written agreement to the IOG as soon as practicable after the agreement has been entered into, and after there has been any material change to the agreement.

72 Retail Units will not influence Commercial Policy of Telecom Fixed Network Business Units

72.1 The Retail Units and all their Employees, agents and contractors will not influence or attempt to influence Commercial Policy in respect of Relevant Services of any Telecom Fixed Network Business Unit, except through mechanisms and processes that are also available to all Eligible Service Providers of that Relevant Service on an equal basis.

72.2 For the avoidance of doubt, the provision of information and advice by the Retail Units (including their Employees, agents and contractors) in relation to retail services on which Resale Services are based, including:

- (a) price changes;
- (b) service change, grandfathering or withdrawal notifications;
- (c) technical provision details; and
- (d) terms and conditions, policies, user guides, collateral, business rules or service delivery rules;

is not influencing or an attempt to influence the Commercial Policy of a Telecom Fixed Network Business Unit in respect of Resale Services that are Relevant Wholesale Services.

PART 7: TELECOM FIXED NETWORK BUSINESS UNITS

73 Outline of Part 7

- 73.1 This Part contains further undertakings that apply specifically to the Telecom Fixed Network Business Units other than the ANS Unit or the Wholesale Unit (if any).
- 73.2 In this Part, Telecom Fixed Network Business Unit means a Telecom Fixed Network Business Unit other than the ANS Unit or the Wholesale Unit.

74 Employees working for Telecom Fixed Network Business Units may not work for the Retail Units

- 74.1 No Employee working for any Telecom Fixed Network Business Unit may work for a Retail Unit.
- 74.2 For the avoidance of doubt, nothing in clause 74.1 prevents a Telecom Fixed Network Business Unit from doing work:

- (a) that is the responsibility of that Telecom Fixed Network Business Unit and is being carried out for the benefit of the Retail Unit; or

Example

A Telecom Fixed Network Business Unit may be responsible for:

- (a) some part of the provisioning process for a retail service provided by a Retail Unit; or
- (b) building functionality that a Retail Unit uses to provide a retail service that consumes the Wholesale Unit BUBA input service

In both cases, Employees working for a Telecom Fixed Network Business Unit can provide these services.

- (b) that is technical or operational work for a Retail Unit where:
- (i) the Telecom Fixed Network Business Unit and the relevant Retail Unit have entered into a written agreement for the Telecom Fixed Network Business Unit to do that work:
- (ii) the written agreement and the work covered by the agreement do not circumvent the intent of these Undertakings; and
- (iii) Telecom provides a copy of the written agreement to the IOG as soon as practicable after the agreement has been entered into, and after there has been any material change to the agreement.

75 Telecom Fixed Network Business Unit's Customer Confidential Information

- 75.1 Each Telecom Fixed Network Business Unit (including its Employees, agents and contractors) will not disclose that unit's Customer Confidential Information

to the Retail Units unless the Service Provider to which the information relates consents.

75.2 Notwithstanding clause 75.1, a Telecom Fixed Network Business Unit may disclose its unit's Customer Confidential Information to a Retail Unit where that disclosure is necessary operationally to enable the Telecom Fixed Network Business Unit to participate in the provision of a Relevant Service in accordance with these Undertakings.

75.3 If a Telecom Fixed Network Business Unit's Customer Confidential Information is disclosed under clause 75.2, the person to whom the information is disclosed may disclose the information to another person in a Retail Unit only if disclosure:

- (a) by the Telecom Fixed Network Business Unit to that other person would be permitted under clause 75.2; or
- (b) is otherwise permitted by these Undertakings.

75.4 Any person who receives a Telecom Fixed Network Unit's Customer Confidential Information under clause 75.3 may disclose that information to another person only if disclosure of the information to that other person would be permitted under clause 75.3. For the purposes of this clause 75, that other person will be deemed to have received the information under clause 75.3.

75.5 If a Telecom Fixed Network Business Unit's Customer Confidential Information is disclosed under clauses 75.2, 75.3 or 75.4, the person to whom the information is disclosed will maintain the confidentiality of the information and will ensure that the information is destroyed or kept secure so that people who are not entitled to receive that information under these Undertakings are not able to access it.

76 Telecom Fixed Network Business Unit's Commercial Information

76.1 Each Telecom Fixed Network Business Unit (including its Employees, agents and contractors) will not disclose that unit's Commercial Information in respect of a Relevant Service to the Retail Units unless that information is also made available to all Eligible Service Providers on an equal basis.

76.2 Notwithstanding clause 76.1, a Telecom Fixed Network Business Unit may disclose its Commercial Information to a Retail Unit if the information:

- (a) relates to a Relevant Service that Telecom is not required to provide Service Providers with and that Telecom is not supplying to a Service Provider and has not yet decided to provide to Service Providers; or

- (b) is necessary operationally to enable the Telecom Fixed Network Business Unit to participate in the provision of a Relevant Service in accordance with these Undertakings.

76.3 If a Telecom Fixed Network Business Unit's Commercial Information is disclosed under clause 76.2(b), the person to whom the information is disclosed may disclose the information to another person in a Retail Unit only if disclosure:

- (a) by the Telecom Fixed Network Business Unit to that other person would be permitted under clause 76.2; or
- (b) is otherwise permitted by these Undertakings.

76.4 Any person who receives Telecom Fixed Network Business Unit Commercial Information under clause 76.3 may disclose that information to another person only if disclosure of the information to that other person would be permitted under clause 76.3. For the purposes of this clause 76, that other person will be deemed to have received the information under clause 76.3.

76.5 If a Telecom Fixed Network Business Unit's Commercial Information is disclosed under clauses 76.2(b), 76.3 or 76.4, the person to whom the information is disclosed will maintain the confidentiality of the information and will ensure that the information is destroyed or kept secure so that people who are not entitled to receive that information under these Undertakings are not able to access it.

PART 8: ENFORCEMENT AND OVERSIGHT FOR COMPLIANCE WITH SEPARATION PLAN

77 Establishment of the Independent Oversight Group

Telecom will establish an Independent Oversight Group consisting of 5 members.

78 Appointment of members of the IOG

78.1 The Board will appoint the members of the IOG, with the majority of members being independent of Telecom.

78.2 The Board will appoint one of the independent members of the IOG to be the Chairperson of the IOG.

78.3 When appointing IOG members under clause 78.1, the Board:

- (a) will not appoint an Employee who works for the ANS Unit, the Wholesale Unit, or a Retail Unit;
- (b) will not appoint any person as an independent member who has a material conflict of interest; and
- (c) will consult with the Commission:
 - (i) on the appropriate skills mix for the IOG; and
 - (ii) before appointing the chairperson and other independent members.

78.4 For the purpose of deciding whether a person has a material conflict of interest, the Board will have regard to whether the person is:

- (a) an Employee, or has recently been an Employee;
- (b) a director or senior executive of another telecommunications provider;
- (c) a partner or senior executive of any firm, company, or other organisation providing services to Telecom or any other telecommunications provider;
- (d) an employee of the Commission; or
- (e) a material shareholder in Telecom or in any other telecommunications provider.

78.5 The Board can remove members of the IOG. However, before the Board removes a member of the IOG, it will first consult with the Commission.

79 **Functions of the IOG**

79.1 Telecom will establish terms of reference for the IOG that provide for the IOG to have the following functions in respect of these Undertakings:

- (a) those in clause 84 in respect of key performance indicators, and codes of conduct for Employees, independent contractors performing the role of an Employee, the CEO and the Board and:
 - (i) recommending those indicators and codes to the Board, if the final product of the consultation process under that clause is satisfactory to the IOG;
 - (ii) reviewing performance against those indicators and codes, and recommending changes to those indicators and codes; and
- (b) processing complaints about compliance with these Undertakings;
- (c) requesting information and carrying out any investigations to assess compliance with these Undertakings;
- (d) requesting the Support Office to carry out any investigations to assess compliance with these Undertakings;
- (e) reviewing reports prepared in accordance with these Undertakings by the Support Office;
- (f) being kept informed of service-level agreements in respect of Relevant Services set by Telecom and reviewing Telecom's performance against those agreements;
- (g) reviewing the provision of Relevant Services internally to Telecom Business Units in accordance with these Undertakings;
- (h) reviewing the process of making, considering, advising, and implementing decisions under clause 41 and reviewing whether requests have been dealt with in accordance with that process;
- (i) reviewing any documentation that these Undertakings require to be supplied to the IOG and investigating whether that documentation shows that there has been a breach of these Undertakings;
- (j) reporting to the Board as soon as is reasonably practicable after the IOG becomes aware of any of Telecom's actions or omissions that, in the IOG's opinion, may become issues of concern in terms of compliance with these Undertakings;

- (k) reporting to the Board and the Commission:
 - (i) as soon as is reasonably practicable after the IOG becomes aware of any non-trivial breach of these Undertakings;
 - (ii) on a regular basis, at times agreed with Telecom, on Telecom's compliance with these Undertakings;
 - (iii) annually, in an annual review of Telecom's compliance with these Undertakings; and
- (l) making, subject to clause 86, each of its annual reports, and any other report or document that the IOG chooses to publish, available on an Internet website that is available to the public at all reasonable times; and
- (m) every other function contemplated for the IOG in these Undertakings.

79.2 The terms of reference established by Telecom under clause 79.1 will provide for the IOG to have the powers necessary to perform the functions listed in clauses 79.1(a) to (m).

80 Funding and support of the IOG

80.1 Telecom will:

- (a) fully fund the IOG in its performance of the functions in clause 79;
- (b) pay each member of the IOG who is appointed to a paid position;
- (c) reimburse each member of the IOG for actual and reasonable travelling and other expenses incurred in carrying out his or her office as a member;
- (d) organise and pay for professional indemnity insurance for each member of the IOG, if requested by the member;
- (e) prepare any reports that the IOG may reasonably require in relation to Telecom's compliance with these Undertakings;
- (f) ensure that the IOG has access to the Employees, any independent contractor performing the role of an Employee, and information that the IOG may reasonably request;
- (g) ensure, subject to clause 86, that every report prepared by Telecom for the IOG or by the IOG under these Undertakings is made available to the public at all reasonable times on Telecom's Internet website if the report relates to:

- (i) a breach of these Undertakings under clause 79.1(k)(i);
 - (ii) codes of conduct for Employees, independent contractors performing the role of an Employee, the CEO and the Board in relation to these Undertakings; or
 - (iii) key performance indicators that relate to these Undertakings; and
- (h) use its best endeavours to provide whatever other assistance the IOG may reasonably require in the performance of its functions.

81 Establishment of the Support Office

Telecom will establish a support office that will assist the IOG in the performance of its functions.

82 Employment of staff for the Support Office

Telecom will employ sufficient staff for the Support Office, and provide other resources as necessary, to:

- (a) enable the Support Office to operate at a level that meets the reasonable requirements of the IOG; and
- (b) ensure that the Support Office is able to operate with a sufficient level of independence from Telecom.

83 Funding and support for the Support Office

Telecom will fully fund the Support Office and use its best endeavours to provide whatever assistance the Support Office may reasonably require in the performance of its functions.

84 Performance measures and other checks of compliance with Undertakings

84.1 Telecom will, in consultation with the IOG:

- (a) prepare key performance indicators related to compliance with these Undertakings and progress towards compliance, and Telecom will have those indicators considered by the IOG; and
- (b) prepare codes of conduct for Employees and independent contractors performing the role of an Employee, the CEO and the Board and have those codes considered by the IOG.

84.2 Telecom will:

- (a) provide additional information to the IOG and the Commission to demonstrate compliance with these Undertakings, as reasonably requested by the IOG or the Commission, including preparing reports or other information related to compliance that are reasonably requested by the IOG or the Commission; and
- (b) use its best endeavours to assist the IOG in conducting an annual review of Telecom's compliance with these Undertakings.

84.3 Any information referred to in clause 84.2(a) will be:

- (a) provided in the manner and form required by the IOG and the Commission;
- (b) provided within the timeframe that is specified by the IOG and the Commission; and
- (c) where requested by the IOG, requested in accordance with a process agreed by Telecom and the IOG in order to ensure that requests are directed to the most appropriate contact person within Telecom who can best facilitate the provision of correct information in a timely manner.

85 **Audit**

85.1 Telecom will appoint independent external auditors and pay for an independent external audit of the IOG's annual report.

85.2 For the purpose of clause 85.1, the appointment of the auditor and the terms of appointment for the auditor are subject to the approval of the Commission, and the terms of appointment will place the auditor under a duty of care to the Commission.

85.3 Telecom will, subject to clause 86, make each report of the auditor provided in accordance with clause 85.1 available on an Internet website that is available to the public at all reasonable times.

86 **Reports containing confidential or commercially sensitive information**

Telecom or the IOG may remove from any report that is made available to the public under clauses 79.1(l), 80.1(g) or 85.3 any information that the IOG agrees is confidential or commercially sensitive information that can be removed, provided that a full version of the report, including that information, is provided to the IOG, the Commission, and the Minister.

87 **Confidentiality**

- 87.1 Except where specifically stated otherwise, or as required by law, all reports, documents and information provided by Telecom to the IOG, the Commission or the Minister in relation to these Undertakings are the property of Telecom and must be kept confidential and may only be used by the IOG or Commission for the purpose of performing their proper functions in respect of these Undertakings.
- 87.2 Telecom and the IOG may agree and implement an information sharing protocol to aid in maintaining the status and confidentiality of information that may be provided to the IOG.

PART 9: PARTICIPATION IN POLICY AND DISCLOSURE OF CERTAIN INFORMATION

88 General rules applicable to all Employees

- 88.1 The Board, CEO and Employees will act in a way that gives effect to these Undertakings.
- 88.2 Employees will not, in doing or omitting to do anything in respect of a Relevant Service, discriminate in favour of one Required Telecom Business Unit (or its customers, End-Users, suppliers, or Employees) at the expense of another Required Telecom Business Unit (or its customers, End-Users, suppliers, or Employees) except as otherwise permitted in these Undertakings.
- 88.3 To avoid doubt, clause 88.2 does not prevent:
- (a) an Employee working for a Required Telecom Business Unit from discriminating in favour of that unit; and
 - (b) an Employee who does not work for a Required Telecom Business Unit from making recommendations in their role as advisors to the Board or CEO, providing information or advice to Telecom Business Units (in a manner that complies with clause 89) or making decisions in what the Employee reasonably believes is in the best interests of Telecom as a whole, irrespective of whether it results or could result in different consequences for different Required Telecom Business Units.
- 88.4 No Employee, other than an Employee working for the ANS Unit, will, in respect of Relevant Network Access Services that the ANS Unit provides Service Providers with or, subject to clause 88.7, Relevant Network Access Services that the ANS Unit has decided to provide Service Providers with but is not currently providing to them ("upcoming ANS Unit services"):
- (a) except through mechanisms and processes that are also available to all Eligible Service Providers in respect of those Relevant Network Access Services on an equal basis, directly or indirectly participate in the ANS Unit's formulation or making of:
 - (i) the annual and long-term corporate plans and technology plans of the ANS Unit to the extent they relate to those Relevant Network Access Services;
 - (ii) other significant plans of the ANS Unit to the extent they relate to those Relevant Network Access Services;
 - (iii) the Commercial Policy of the ANS Unit in respect of those Relevant Network Access Services; or

- (b) be permitted to have access to ANS Unit Commercial Information in respect of a Relevant Network Access Service unless that information is also made available to all Eligible Service Providers of the Relevant Network Access Service on an equal basis; or
- (c) be permitted to have access to ANS Unit Customer Confidential Information in relation to a Relevant Network Access Service unless the Service Provider to which the information relates consents.

88.5 No Employee, other than an Employee working for the Wholesale Unit, will in respect of Relevant Wholesale Services that the Wholesale Unit provides Service Providers with or, subject to clause 88.8, Relevant Wholesale Services that the Wholesale Unit has decided to provide Service Providers with but is not currently providing to them ("upcoming Wholesale Unit services"):

- (a) except through mechanisms and processes that are also available to all Eligible Service Providers in respect of those Relevant Wholesale Services on an equal basis, directly or indirectly participate in the Wholesale Unit's formulation or making of:
 - (i) the annual and long-term corporate plans and technology plans of the Wholesale Unit to the extent they relate to those Relevant Wholesale Services;
 - (ii) other significant plans of the Wholesale Unit to the extent they relate to those Wholesale Relevant Services;
 - (iii) the Commercial Policy of the Wholesale Unit in respect of those Relevant Wholesale Services; or
- (b) be permitted to have access to Wholesale Unit Commercial Information in respect of a Relevant Wholesale Service unless that information is also made available to all Eligible Service Providers of the Relevant Wholesale Service on an equal basis; or
- (c) be permitted to have access to Wholesale Unit Customer Confidential Information in relation to a Relevant Wholesale Service unless the Service Provider to which the information relates consents.

88.6 For the avoidance of doubt, clauses 88.4(a) and 88.5(a) do not limit Telecom from setting commercial policy of general application across Telecom which it is appropriate to set centrally. Telecom will provide the IOG with an updated register identifying commercial policy of general application across Telecom that could materially impact on the provision of Relevant Services every 6 months commencing on 1 July 2008, and will make any commercial policy of general application across Telecom available on request to the IOG.

88.7 For the purpose of clause 88.4, any Service Provider who the ANS Unit reasonably anticipates will seek access to an upcoming ANS Unit service will be an Eligible Service Provider for the purpose of that service.

88.8 For the purpose of clause 88.5, any Service Provider who the Wholesale Unit reasonably anticipates will seek access to an upcoming Wholesale Unit service will be an Eligible Service Provider for the purpose of that service.

88.9 This clause 88 is subject to the exceptions set out in these Undertakings including (without limitation):

- (a) clause 7 (which relates to the role of the Board and the CEO);
- (b) clauses 33, 58 and 75.2 (which allows disclosure of ANS Unit and Wholesale Unit Customer Confidential Information in certain circumstances);
- (c) clauses 34, 59 and 76.2 (which allows disclosure of ANS Unit and Wholesale Unit Commercial Information in certain circumstances);
- (d) clause 88.6 (which allows Telecom to set commercial policy of general application across Telecom); and
- (e) clauses 89 to 91 (which allows for Part A Persons to Participate in Policy, for Part B Persons to access Commercial Information, and for Part C Persons to access Customer Confidential Information in certain circumstances).

89 **Rules for Part A Persons in relation to Participation in Policy**

89.1 Part A Persons may Participate in Policy made or formulated by the ANS Unit by:

- (a) recommending to the Board or the CEO to direct the ANS Unit; or
- (b) providing information (but not advice or instruction) to the ANS Unit in response to a request from the ANS Unit for that information in order to assist the ANS Unit in making its own decision.

89.2 Any Participation in Policy under clause 89.1:

- (a) will be no more than is reasonable and necessary to enable the Part A Person to perform their role;
- (b) will be transparent to the IOG by either:

- (i) if the Board or CEO accepts a recommendation to direct the ANS Unit under clause 89.1(a), the Board or CEO complying with clause 7 (to the extent that clause 7 applies to that direction);
 - (ii) if information provided under clause 89.1(b) is intended or likely to encourage the ANS Unit to take a materially different approach to a significant matter, or otherwise materially influence the content or shape of the relevant policy, recording that information in writing and making it available to the IOG on request by the IOG; and
- (c) in respect of the Executive, excludes participation by any member of the Executive who manages the Wholesale Unit, a Retail Unit or another Telecom Fixed Network Business Unit (other than the ANS Unit). For the avoidance of doubt, this means that an Executive Member who manages the Wholesale Unit, a Retail Unit or another Telecom Fixed Network Business Unit (other than the ANS Unit) cannot Participate in Policy of the ANS Unit.

89.3 Part A Persons may Participate in Policy made or formulated by the Wholesale Unit by:

- (a) recommending to the Board or the CEO to direct the Wholesale Unit; or
- (b) providing information (including advice but not instruction) to the Wholesale Unit.

89.4 Any Participation in Policy under clause 89.3:

- (a) will be no more than is reasonable and necessary to enable the Part A Person to perform their role;
- (b) will be transparent to the IOG by either:
 - (i) if the Board or CEO accepts a recommendation to direct the Wholesale Unit under clause 89.3(a), the Board or CEO complying with clause 7 (to the extent that clause 7 applies to that direction);
 - (ii) if information provided under clause 89.3(b) is intended or likely to cause the Wholesale Unit to take a materially different approach to a significant matter, or otherwise materially influence the content or shape of the relevant policy, recording that information in writing and making it available to the IOG on request by the IOG; and
- (c) in respect of the Executive, excludes participation by any member of the Executive who manages the ANS Unit or a Retail Unit. For the avoidance

of doubt, this means that an Executive Member who manages the ANS Unit or a Retail Unit cannot Participate in Policy of the Wholesale Unit.

89.5 For the avoidance of doubt, clause 89 does not limit:

- (a) Part A Persons from participating in the business of the ANS Unit or the Wholesale Unit if that participation is not Participation in Policy; or
- (b) the duties or roles of the Manager of the ANS Unit in respect of the ANS Unit, the Manager of the Wholesale Unit in respect of the Wholesale Unit and TCNZ's directors, the CEO or the Board in accordance with clause 7.

90 **Rules for Part B Persons in relation to Commercial Information**

90.1 The ANS Unit or the Wholesale Unit may disclose Commercial Information of that unit to a Part B Person provided that:

- (a) the Part B Person has a legitimate need for the information; and
- (b) the disclosure is no more than is reasonable and necessary to enable that Part B Person to perform their role.

90.2 Clause 90.1 is subject to the following limitations:

- (a) the ANS Unit cannot disclose its Commercial Information to members of the Executive who manage the Wholesale Unit, a Retail Unit or another Telecom Fixed Network Business Unit (other than the ANS Unit) but can disclose summaries of ANS Unit Commercial Information to those members of the Executive; and
- (b) the Wholesale Unit cannot disclose its Commercial Information to members of the Executive who manage the ANS Unit or a Retail Unit but can disclose summaries of Wholesale Unit Commercial Information to those members of the Executive.

90.3 Any summaries of Commercial Information provided to a member of the Executive under Clause 90.2 will:

- (a) contain no more information than is reasonable and necessary to enable the Executive member to perform their role; and
- (b) be in a form that could not reasonably be expected to identify any customers or End-Users of a Service Provider.

90.4 If information is supplied under clause 90, the person to whom the information is disclosed will be required to maintain, and aid in maintaining, the confidentiality of the information, and not to disclose the information except as permitted under these Undertakings.

90.5 For the avoidance of doubt, Part B Persons may receive any Commercial Information if that information is also made available to all Eligible Service Providers on an equal basis or as otherwise permitted by these Undertakings.

90.6 For the avoidance of doubt, a Part B Person can disclose Commercial Information to other Part B Persons in accordance with this clause 90.

91 Rules for Part C Persons in relation to Customer Confidential Information

91.1 The ANS Unit or the Wholesale Unit may disclose Customer Confidential Information of that unit to a Part C Person provided that:

- (a) the Part C Person has a legitimate need for the information; and
- (b) the disclosure is no more than is reasonable and necessary to enable that Part C Person to perform their role.

91.2 Clause 91.1 is subject to the following limitations:

- (a) the ANS Unit cannot disclose its Customer Confidential Information to members of the Executive who manage the Wholesale Unit, a Retail Unit or another Telecom Fixed Network Business Unit (other than the ANS Unit) but can disclose summaries of ANS Unit Customer Confidential Information to those members of the Executive; and
- (b) the Wholesale Unit cannot disclose its Customer Confidential Information to members of the Executive who manage the ANS Unit or a Retail Unit but can disclose summaries of Wholesale Unit Customer Confidential Information to those members of the Executive.

91.3 Any summaries of Customer Confidential Information provided to a member of the Executive under clause 91.2 will:

- (a) contain no more information than is reasonable and necessary to enable the Executive member to perform their role; and
- (b) be in a form that could not reasonably be expected to identify any customers or End-Users of a Service Provider.

91.4 If information is supplied under clause 91, the person to whom the information is disclosed will be required to maintain, and aid in maintaining, the confidentiality of the information, and not to disclose the information except as permitted under these Undertakings.

91.5 For the avoidance of doubt, a Part C Person can disclose Customer Confidential Information to other Part C Persons in accordance with this clause 91.

PART 10: MISCELLANEOUS PROVISIONS

92 Amendments to Part A Persons, Part B Persons and Part C Persons and Shared Services

92.1 Telecom and the Commission may, by agreement, amend:

- (a) the contents of the lists of persons and functional groups referred to in Schedule 2; and
- (b) the definition of the roles of any of those persons or functional groups.

92.2 If amendments are made under clause 92.1, Telecom will make the amended information available on its Internet website that is available to the public at all reasonable times.

93 Certification by managers of Part A Persons, Part B Persons and Part C Persons that Undertakings complied with

The most appropriate senior manager (who must be a member of the Executive or a direct report of a member of the Executive) of each of the persons and functional groups referred to in Schedule 2 (but excluding the Board and the CEO) will certify to the Board annually that, to the best of their knowledge after making reasonable inquiry, they and the Employees working for their groups have complied with these Undertakings (except for any breaches that have been reported to the IOG and the Commission).

94 Consultation with Service Providers about which unit they prefer to deal with

94.1 As soon as practicable, Telecom will use its best endeavours to consult with all Service Providers who are Eligible Service Providers in respect of any Relevant Service about whether they would prefer to deal only with the ANS Unit or the Wholesale Unit in respect of all of the Relevant Services that the Service Provider purchases from Telecom and, if so, which unit.

94.2 If following consultation under clause 94.1, a significant number of Eligible Service Providers would prefer, Telecom will implement arrangements so that:

- (a) the ANS Unit or the Wholesale Unit, as the case may be, can take orders for Relevant Services and any other required information from Service Providers on behalf of the other unit and communicate with the Service Provider regarding the delivery of the order;
- (b) a Service Provider can choose to deal with only 1 unit for purchases of all Relevant Services where it predominantly purchases services from that unit and where, as a matter of convenience, it wishes to place all of its orders for Relevant Services with that unit; and

- (c) if a Service Provider chooses to deal with only 1 unit, the Service Provider experiences no material disadvantage in terms of price, service, or quality as a result of that choice.
- 94.3 If following consultation under clause 94.1 a significant number of Eligible Service Providers do not prefer the option of dealing with only 1 unit, then the default option will be that:
- (a) the ANS Unit will provide a wholesale sales function for Relevant Network Access Services; and
 - (b) the Wholesale Unit will provide a wholesale sales function for Relevant Wholesale Services.
- 94.4 If Telecom implements arrangements as described in clause 94.2(a):
- (a) the ANS Unit will still provide a wholesale sales function for Relevant Network Access Services;
 - (b) the Wholesale Unit will still provide a wholesale sales function for Relevant Wholesale Services; and
 - (c) a Service Provider who does not choose the option of dealing with only 1 unit as described in clause 94.2(b) may continue to separately deal with the ANS Unit to order Relevant Network Access Services and the Wholesale Unit to order Relevant Wholesale Services.

95 **Force majeure**

95.1 A "force majeure event" is any:

- (a) act of God, fire, earthquake, storm or flood;
- (b) strike, lockout, work stoppage or other labour hindrance;
- (c) explosion, collision or nuclear accident;
- (d) sabotage, riot, civil disturbance, insurrection, epidemic, national emergency (whether in fact or law) or act of war (whether declared or not);
- (e) the failure of any equipment, materials, services or supplies provided to Telecom by any other person;
- (f) unavoidable accident; or
- (g) other event beyond the reasonable control of Telecom; but

does not include:

- (h) loss of supply of any essential services where such loss of supply is caused by Telecom's action or negligence;
- (i) any event which Telecom could have prevented or overcome by the exercise of reasonable diligence and at reasonable cost; or
- (j) any lack of funds for any reason.

95.2 If Telecom fails, or believes it might fail, to meet an obligation under these Undertakings because of a force majeure event, it will:

- (a) give notice to the IOG and the Commission of the event and the likely effect of the event as soon as is reasonably practicable after it becomes aware of the event;
- (b) in the case of an anticipated failure, continue to meet the obligation for as long as possible; and
- (c) following the failure, do all it reasonably can to meet the obligation as soon as is practicable.

95.3 Telecom will not be in breach of these Undertakings if it fails to meet an obligation under these Undertakings to the extent that, and for as long as, such failure is the result of a force majeure event.

96 **Telecom will establish arrangements to ensure compliance**

96.1 TCNZ will:

- (a) establish arrangements to ensure that it and each of its Subsidiaries, and all of their officers, Employees, agents, and contractors, comply with these Undertakings, and with any documents or procedures that are required by, or necessary to give effect to, these Undertakings; and
- (b) provide evidence to the IOG of the steps that they have taken to comply with clause 96.1(a).

96.2 For the avoidance of doubt, nothing in these Undertakings requires Telecom to obtain the agreement of, or endeavour to procure, any contractor to act in the best interests of Telecom or any part of Telecom except to the extent that the contractor is acting as an agent of Telecom.

97 **Undertakings do not limit outsourcing**

97.1 Nothing in these Undertakings limits Telecom's ability to contract with any other person to operate any of Telecom's assets or to perform any of Telecom's

functions or to carry out any activities in respect of Relevant Services that would otherwise be carried out by Telecom, provided that:

- (a) Telecom will obtain the agreement of that other person necessary to ensure that the terms of the outsourcing subjects that other person to the same obligations as would be imposed on an Employee working for the Telecom Business Unit whose business is being outsourced; and
- (b) Telecom retains the ability to ensure that the way in which those assets are operated, functions are performed, or activities are carried out will not undermine a robust operational separation of Telecom.

97.2 For the avoidance of doubt:

- (a) these Undertakings do not prevent Telecom from using the same contractor or person to supply outsourced services to more than one Telecom Business Unit; and
- (b) clause 97.1 does not require Telecom to impose obligations on contractors that are fundamentally inconsistent with the nature of a contractor's outsourced business, such as an obligation for individual persons to solely work for a Telecom Business Unit and have separate accommodation;

provided always that the terms of the outsourcing must require compliance with the rules under these Undertakings relating to the disclosure of Customer Confidential Information and Commercial Information.

Example

Telecom may outsource any of the functions referred to in clause 38 provided that it does so in a way that is consistent with the Arm's-Length Rules.

98 **Shared assets and systems**

To avoid doubt, any Required Telecom Business Unit may share assets and systems with any other Telecom Business Unit, provided that the terms on which those assets or systems are shared comply with the requirements of these Undertakings.

99 **Conditions on use of Shared Services**

99.1 Any Required Telecom Business Unit can use Shared Services to carry out work that the unit is required to do under or in connection with these Undertakings.

99.2 If a Required Telecom Business Unit uses Shared Services to carry out any work that the unit is required to do under or in connection with these Undertakings, the unit will have arrangements in place to ensure that the terms

on which it uses Shared Services complies with these Undertakings including ensuring that, when Shared Services does work for that Required Telecom Business Unit it is bound by the same rules under these Undertakings relating to the disclosure of Customer Confidential Information and Commercial Information as that unit.

100 **Access Planners**

100.1 For the purpose of this clause:

- (a) *Access Planners* means the small group of Employees working for the ANS Unit (at all times less than 20 persons unless the IOG agrees in writing otherwise) who perform the Access Planner Function; and
- (b) *Access Planner Function* means applying the Telecom fixed network group policies and investment tactics prepared by Group Technology in order to make day-to-day decisions, and co-ordinate day-to-day work, in relation to deployment or rearrangement of Telecom equipment in and connected to the Access Network for the purpose of ensuring the efficient and effective operation of the Telecom fixed network as a whole where:
 - (i) those decisions are consistent with the ANS annual and long-term technology plans (or equivalent documents) and the applicable Telecom fixed network group policies and investment tactics; and
 - (ii) the capital cost of the deployment or rearrangement of Telecom equipment subject to any decision (in terms of capital costs incurred or saved as a result of that deployment or arrangement) is not greater than \$250,000 (or any greater amount agreed by the Commission).

100.2 To the minimum extent necessary to properly perform the Access Planner Function, Access Planners may in carrying out their function across the Telecom Fixed Network Business Units, access and use Commercial Information and Customer Confidential Information of, and balance the network interests of, those units.

100.3 In performing the Access Planner Function, Access Planners will not be considered to be influencing the Commercial Policy of the Wholesale Unit.

100.4 If Access Planners receive Wholesale Unit Commercial Information or Wholesale Unit Customer Confidential Information, they will be required to maintain the confidentiality of the information and may only disclose the information to another person if disclosure is otherwise permitted by these Undertakings.

100.5 The minor relaxations to the Arm's-Length Rules for Access Planners under this clause are required to ensure that decisions within the scope of the Access Planner Function regarding the development of Telecom's fixed network can be

made in a co-ordinated manner to enable the efficient and effective operation of the Telecom fixed network as a whole.

101 **Advisors**

Telecom will ensure that its selection and appointment of advisors does not undermine a robust operational separation of Telecom.

102 **Certification by Board, CEO, and managers of Required Telecom Business Units that Undertakings complied with**

102.1 The Board will certify annually (by all directors signing personally or by another director appointed as his or her agent for this purpose) on behalf of TCNZ that, to the best of the directors' knowledge after making reasonable inquiry, TCNZ and all its Subsidiaries have complied with these Undertakings (except for any breaches that have been reported to the IOG and the Commission).

102.2 Telecom will ensure that the following people certify annually to the Board that, to the best of their knowledge after making reasonable inquiry, they have complied with these Undertakings (except for any breaches that have been reported to the IOG and the Commission):

- (a) the CEO; and
- (b) the Manager of the ANS Unit, the Manager of the Wholesale Unit, the managers of the Retail Units, and the manager of any other Telecom Fixed Network Business Unit.

103 **Whistleblowing**

Telecom will establish a system to:

- (a) facilitate the disclosure and investigation of breaches of these Undertakings; and
- (b) enable Employees to report matters to the IOG, and to protect Employees who do so.

104 **Statement of assets of ANS Unit as at 1 July 2008**

104.1 Telecom will prepare a statement of the assets controlled by the ANS Unit as at 1 July 2008.

104.2 The statement prepared under clause 104.1 will:

- (a) be prepared in accordance with generally accepted accounting practice;

- (b) be prepared in accordance with the same accounting policies as the accounts of Telecom; and
- (c) reconcile with the accounts of Telecom.

104.3 Telecom will appoint, and pay for, an independent external audit of the statement of assets prepared under clause 104.1.

104.4 No later than 1 October 2008, Telecom will provide the IOG, the Commission, and the Minister with:

- (a) copies of the statement of assets and the independent External Auditor's report; and
- (b) full information setting out the methodologies used to prepare the statement of assets, which will include descriptions of any models used, and all assumptions and estimates that are necessary to provide assurance as to the robustness of the calculations made in preparing the statement, including identifying the owner of the assets.

104.5 For the avoidance of doubt, nothing in this clause affects Part 2B of the Act.

105 Inadvertent failure to comply with Arm's-Length Rules and requirement for certain Employees to work for the ANS and Wholesale Units before 31 December 2008

105.1 This clause applies during the period beginning on the Separation Day and ending on 31 December 2008.

105.2 After being notified of any failure to comply with any of the Arm's-Length Rules, or any requirement that a particular Employee working for the ANS Unit or the Wholesale Unit is required to comply with, Telecom will be allowed reasonable time to comply provided that:

- (a) Telecom has agreed with the Commission what a reasonable time would be in the circumstances;
- (b) Telecom takes all reasonable steps during that period to try to achieve compliance; and
- (c) the failure to comply was inadvertent.

105.3 If the requirements of clause 105.2 are met, Telecom will not be in breach of these Undertakings in relation to the failure to comply notified under clause 105.2.

106 **Failure to comply with these Undertakings**

Telecom will not be in breach of these Undertakings in circumstances where Telecom fails to meet a requirement of these Undertakings and the failure to comply is trivial or de minimis.

107 **Employees working for Telecom**

107.1 Nothing in these Undertakings prevents an Employee working for one part of Telecom from ceasing work for that part and working for another part of Telecom, as long as clause 107.2 is complied with.

107.2 Telecom will:

- (a) ensure that any Employee who ceases to work for one part of Telecom and works for another part of Telecom remains bound by the requirements relating to disclosure of any Customer Confidential Information or Commercial Information to the extent that information is only known to them because he or she previously worked for another part of Telecom; and
- (b) not use clause 107.1 as a means of undermining a robust operational separation of Telecom.

108 **Compliance with the law**

Nothing in these Undertakings limits any obligation of Telecom, the Board, the CEO, an Employee, a Telecom agent or a Telecom contractor to comply with any law that is binding on, or applies to, that person or Telecom, or prevents such compliance.

109 **Enforceability of these Undertakings**

109.1 These Undertakings are not enforceable by any person other than in accordance with sections 69Q to 69S of the Act.

109.2 For the avoidance of doubt this clause does not limit the effect of section 69N of the Act.

110 **TSO**

Nothing in these Undertakings limits Telecom's obligations under any TSO Instrument.

111 **Review of Undertakings and Telecom's performance**

111.1 After 31 December 2009, Telecom may ask the Commission to undertake a review of, and provide a report to the Minister, copied to Telecom, on,

Telecom's performance under these Undertakings, and the workability of these Undertakings.

111.2 After 31 December 2011, Telecom may ask the Commission to undertake a review of, and provide a report to the Minister, copied to Telecom, on, Telecom's performance in relation to its governance, information sharing, and policy participation reporting obligations under these Undertakings, including a recommendation on whether the governance, information sharing, and policy participation reporting obligations should be reduced.

112 **Migration plans**

Telecom will meet its obligations in the migration plans in Schedule 1, in accordance with the provisions of Schedule 1.

SCHEDULE 1 - TRANSITION TO EQUIVALENCE

PART A: BINDING COMMITMENTS

1 GENERAL DEFINITIONS

1.1 In this Schedule 1, unless the context requires otherwise:

Basic UBA or *BUBA* means the unbundled bitstream access service called the Basic UBA Service in the UBA STD and:

- (a) includes that service as varied as a result of a review, clarification or amendment to the UBA STD; but
- (b) does not include any new unbundled bitstream access service that Telecom becomes required to provide under the UBA STD as a result of a review, clarification or amendment to the UBA STD;

B2B Gateway means an automated machine to machine interface between a Telecom Business Unit (that provides a Relevant Service) and Service Providers and other Telecom Business Units that enables the Telecom Business Unit to exchange data in relation to Relevant Service transactions (for example, ordering, provisioning and fault management transactions) in the same way with Service Providers and the other Telecom Business Units;

BUBA with POTS means BUBA where there is an active analogue telephone service on the same copper pair as the BUBA service (but does not include that analogue telephone service);

BUBA without POTS means BUBA where there is not an active analogue telephone service on the same copper pair as the BUBA service;

Customer Difficult Personal Circumstances means circumstances personal to a particular customer in which a responsible telecommunications service provider would not force a customer to change their service experience (for example where the customer is classified as a new customer because of a divorce or a death in the family or where other relevant hardships or personal business circumstances apply);

December 2009 Requirements means, in relation to a particular Relevant Service:

- (a) the following requirements:
 - (i) Telecom Business Units and Service Providers are provided with the same service on the same terms (including price);

- (ii) Telecom Business Units and Service Providers are able to use the same:
 - (A) B2B Gateway; or
 - (B) Online Portal that meets the reasonable needs of those Service Providers or other Telecom Business Units who do not require or are not capable of using the B2B Gateway;

in the same way for ordering, provisioning, and fault management of the service;
 - (iii) Telecom Business Units use only the B2B Gateway or Online Portal referred to in (ii) above for ordering, provisioning and fault management of the service;
 - (iv) Telecom Business Units and Service Providers receive the same service level reporting for the service; and
- (b) The following EOI capability building blocks are completed for the ANS Unit or the Wholesale Unit (as relevant) for the Relevant Service:
- (i) Product Management EOI Building Block Completed;
 - (ii) Channels EOI Building Block Completed;
 - (iii) Order Management (Sales Order Management Component Only) EOI Building Block Completed;
 - (iv) Customer Information Management EOI Building Block Completed; and
 - (v) Service Management (Service Desk Component Only) EOI Building Block Completed.

Detailed Design Document means, in relation to EOI Inventory Management Systems for a particular Telecom Business Unit, the document which contains the information required to commence the build of the EOI Inventory Management Systems for that Telecom Business Unit;

DSTN Services means any Telecom service delivered over the DSTN network platform at the Approval Date, including the services called Digital Voice Access Services (DVA), Low Speed Digital Data Services (LSDDS), High Speed Digital Data Services (HSDDS) using DSTN, Multistream Services and Digital Voice Services (DVS);

Enforceable, in relation to a milestone, means that Telecom is required under these Undertakings to achieve the milestone;

Enhanced UBA or *EUBA* means the unbundled bitstream access services called the Enhanced UBA Services in the UBA STD and:

- (a) includes those services as varied as a result of a review, clarification or amendment to the UBA STD; but
- (b) does not include any new unbundled bitstream access service that Telecom becomes required to provide under the UBA STD as a result of a review, clarification or amendment to the UBA STD;

EOI Inventory Management Systems has the meaning given to that term in paragraph 2.4(a);

Existing PSTN Lines means "x" number of Telecom fixed access lines where "x" equals:

- (a) the total number of Telecom fixed access lines existing on the Approval Date for which there is a provisioned fixed PSTN line circuit as at the Approval Date, if this number is agreed between Telecom and the Minister on or before 30 June 2008; and if not
- (b) 1,800,000;

EUBA Coverage Milestone means any milestone in the PSTN migration plan that refers to:

- (a) the availability of EUBA without POTS on a percentage of Existing PSTN Lines; or
- (b) a number of distribution cabinets having been installed or equipped with ADSL2 and or equivalent DSL capability;

EUBA with POTS means EUBA where there is an active analogue telephone service on the same copper pair as the EUBA service (but does not include that analogue telephone service);

EUBA without POTS means EUBA where there is not an active analogue telephone service on the same copper pair as the EUBA service;

Fixed Voice Customer Lines means any Telecom fixed access line being supplied with a Retail Unit service designed to be a primary line voice service;

Frame Relay means, in Telecom's network, a set of interfaces and protocols supported by the data networks to provide Frame Relay Services and access

connections to data services like the One Office Services and Unbundled Partial Circuits;

Frame Relay Services means any Telecom service described as a frame relay service as at the Approval Date and including those services as they may evolve over time;

High Speed Network Service or HSNS means the Wholesale Unit's service of that name (which is a Layer 2 Ethernet access tail service delivering non contended bandwidth over Telecom's fibre optic network and is described in the Wholesale Unit's Wholesale Services Price List) as it may evolve over time;

Inventory Data means in relation to a particular Relevant Service, the data used to describe the physical characteristics, quantity and location of assets in a way that facilitates the use of these assets in the supply of the Relevant Service;

IP Trunking Service means an IP based service that provides connectivity between a private VOIP network and the public telephone network;

ISDN means Integrated Services Digital Network, and is a set of adjunct capabilities to Telecom's PSTN;

ISDN Services means any service provided primarily by means of Telecom's fixed PSTN and its associated support systems and provided over ISDN telephone lines, including Primary Rate Access (PRA) and Basic Rate Access (BRA) lines;

Non Code Access or NCA means a service that allows end-customers connected to Telecom's fixed PSTN to make toll calls using their preferred toll call Service Provider without having to first dial a prefix which identifies the Service Provider;

One Office Services means any Telecom managed data service described as being in the one office service family as at the Approval Date;

Online Portal means a manual web-based interface between a Telecom Business Unit (that is providing a Relevant Service) and Service Providers and other Telecom Business Units that enables the Telecom Business Unit to exchange data in relation to Relevant Service transactions (for example, ordering, provisioning and fault management transactions) in the same way with Service Providers and the other Telecom Business Units;

Other Legacy Data Services means the Telecom services called (as at the Approval Date) Dedicated Internet Access, DSTN Services, X25, Corporate Internet Data (CID), IP Net, Megalink, Metro IP, Metro LAN Extension, LanLink, Netway Integrated Access, High Speed Digital Data (using ATM), Analogue Data and Asynchronous Transfer Mode (ATM);

Outlier Broadband Products means the Telecom services called (as at the Approval Date) Remote Office, SecureMe, School Zone Starter and Eftpos Service;

(Over ATM) in relation to a service, means that the instances of that service are supplied using DSL technology employing ATM network interfaces;

(Over Ethernet) in relation to a service, means that the instances of that service are supplied using DSL technology employing Ethernet network interfaces;

Product Plans of Intent means a provisional delivery schedule for future services or variations of existing services released by a Telecom Business Unit for the purpose of facilitating industry consultation;

Product Plans of Record means a committed delivery schedule for future services or variations of existing services (that includes details of committed service scopes and launch dates) released by a Telecom Business Unit for the purpose of allowing Service Providers and other Telecom Business Units to commit to their own product roadmaps and other marketing activities;

PSTN Services means any Telecom service provided predominantly by means of Telecom's fixed PSTN and its associated support systems existing at the Approval Date;

Retail Broadband Services means any DSL-based broadband Internet access service provided by Retail Units but, for the avoidance of doubt, excluding Outlier Broadband Products or their replacements;

Stop Innovation means that, for a given service, no new material enhancements will be made to the functionality of the service unless that new functionality is required to operationally maintain the service;

Stop Sell to New Customers means that, for a given service, the service will not be available to customers who do not currently receive the service. Moves, adds and changes (MACs) will still be permitted for existing customers of that service;

Telecom PSTN Services means any Telecom service provided by the Retail Units to end-customers predominantly by means of Telecom's fixed PSTN and its associated support systems existing at the Approval Date.

Telecom Zones 1, 2 and 3 means the Telecom line density zones known as Zone 1, Zone 2, Zone 3a and Zone 3b and generally used by Telecom to describe those urban density areas of New Zealand served by telephone exchanges with a total line count of greater than 500 lines, and which at 30 June 2008 together include not less than 80% of total Existing PSTN Lines. Before the Approval Date, Telecom will provide to the Minister a list of the cities and towns whose urban population areas are included in these zones. Telecom will provide to the Minister

full details of the definitive geographic areas covered by these zones (which, for the avoidance of doubt, will not change over time), on or before 30 June 2008. Following consultation with the Minister and the Commission Telecom will also by 30 June 2008 provide to the Minister full details of the precise method for classifying all customer service addresses within these zones. This method must ensure that as at 30 June 2008 not less than 80% of total Existing PSTN Lines are in these zones;

Tracking, in relation to a milestone, means that:

- (a) Telecom intends to achieve the milestone, and is required to measure and report on the milestone under paragraph 4; but
- (b) it will not be a breach of these Undertakings if Telecom does not achieve the milestone;

UBA Backhaul means the unbundled bitstream access backhaul service that Telecom is required to provide Service Providers with under the UBA Backhaul STD; and

- (a) includes that service as varied as a result of a review, clarification or amendment to the UBA Backhaul STD; but
- (b) does not include any new unbundled bitstream access backhaul service that Telecom becomes required to provide Service Providers with under the UBA Backhaul STD as a result of a review, clarification or amendment to the UBA Backhaul STD;

UBA Backhaul Standard Terms Determination or *UBA Backhaul STD* means the Commission's first Standard Terms Determination regarding the Designated Access Service of unbundled bitstream access backhaul;

UBA Standard Terms Determination or *UBA STD* means the Commission's Standard Terms Determination dated 12 December 2007 regarding the Designated Access Service of unbundled bitstream access;

UCLL means the unbundled copper local loop network service that Telecom is required to provide Service Providers with under the UCLL STD; and

- (a) includes that service as varied as a result of a review, clarification or amendment to the UCLL STD; but
- (b) does not include any new unbundled copper local loop network service that Telecom becomes required to provide Service Providers with under the UCLL STD as a result of a review, clarification or amendment to the UCLL STD;

UCLL Access Equipment means DSLAMs or equivalent equipment that are predominantly used by Telecom for the purpose of providing access to, and interconnection with, UCLL or UCLL Backhaul including any necessary supporting equipment;

UCLL Backhaul means the unbundled copper local loop network backhaul service that Telecom is required to provide Service Providers with under the UCLL Backhaul STD; and

- (a) includes that service as varied as a result of a review, clarification or amendment to the UCLL Backhaul STD; but
- (b) does not include any new unbundled copper local loop network backhaul service that Telecom becomes required to provide Service Providers with under the UCLL Backhaul STD as a result of a review, clarification or amendment to the UCLL Backhaul STD;

UCLL Backhaul Standard Terms Determination or UCLL Backhaul STD means the Commission's first Standard Terms Determination regarding the Designated Access Service of unbundled copper local loop network backhaul;

UCLL Co-Location means the unbundled copper local loop network co-location service that Telecom is required to provide Service Providers with under the UCLL Co-Location STD; and

- (a) includes that service as varied as a result of a review, clarification or amendment to the UCLL Co-Location STD; but
- (b) does not include any new unbundled copper local loop network co-location service that Telecom becomes required to provide Service Providers with under the UCLL Co-Location STD as a result of a review, clarification or amendment to the UCLL Co-Location STD;

UCLL Co-Location Standard Terms Determination or UCLL Co-Location STD means the Commission's Standard Terms Determination dated 7 November 2007 regarding the Designated Access Service of unbundled copper local loop network co-location;

UCLL Standard Terms Determination or UCLL STD means the Commission's Standard Terms Determination dated 7 November 2007 regarding the Designated Access Service of unbundled copper local loop network;

Unbundled Network Service or UNS means the Wholesale Unit's service of that name (which is a Layer 2 access tail service provided over a copper network, based on DSL technology and is described in the Wholesale Unit's Wholesale Services Price List) as it may evolve over time;

Unbundled Partial Circuits or *UPC* means the Wholesale Unit's service of that name (which is a Layer 2 access tail service provided over a copper network, based on Frame Relay technology and is described in the Wholesale Unit's Wholesale Services Price List) as it may evolve over time;

Withdraw Service means that, for a given service, the service is no longer available to customers.

2 **COMPLETION OF EOI BUILDING BLOCKS DEFINITIONS**

In this Schedule 1, unless the context requires otherwise:

2.1 *Billing Management EOI Building Block Completed* means for a particular Relevant Service and a particular Telecom Business Unit:

- (a) the same processes and systems are used when raising a bill for another Telecom Business Unit or Service Provider for the Relevant Service;
- (b) the processes and systems in (a) ensure that the Telecom Business Unit bills Service Providers and other Telecom Business Units for the Relevant Service in the billing cycle of the Service Provider or the other Telecom Business Unit following the supply of the Relevant Service; and
- (c) the Manager of the ANS Unit or the Manager of the Wholesale Unit (as relevant) has notified the Commission in writing that the conditions in (a) and (b) above are met;

and *Complete the Billing Management EOI Building Block* has the corresponding meaning;

2.2 *Channels EOI Building Block Completed* means for a particular Relevant Service and a particular Telecom Business Unit:

- (a) the data standards that Service Providers and other Telecom Business Units will need to use to interface with the B2B Gateway and Online Portal have been published on the Internet website of the Telecom Business Unit;
- (b) the B2B Gateway and Online Portal have been completed and tested and are ready for piloting;
- (c) for each of the B2B Gateway and Online Portal, a single process for staff of Service Providers and other Telecom Business Units to become authenticated is published;
- (d) a pilot for each of the B2B Gateway and Online Portal has been conducted with at least one Service Provider in each pilot, and each pilot has demonstrated that a participant in the pilot can successfully order the

Relevant Service and raise trouble tickets in relation to that Relevant Service;

- (e) Service Providers can and other Telecom Business Units must use the B2B Gateway or the Online Portal to place orders for the Relevant Service and raise trouble tickets in relation to the Relevant Service; and
- (f) the Manager of the ANS Unit or the Manager of the Wholesale Unit (as relevant) has notified all Eligible Service Providers and the other Telecom Business Units in writing of the requirement in (e) above;

and *Complete the Channels EOI Building Block* has the corresponding meaning;

2.3 *Customer Information Management EOI Building Block Completed* means for a particular Relevant Service and a particular Telecom Business Unit:

- (a) the same systems and processes are used by the Telecom Business Unit to capture, query and use data relating to Service Providers (and their customers) and other Telecom Business Units (and their customers) to which the Telecom Business Unit supplies the Relevant Service; and
- (b) the Manager of the ANS Unit or the Manager of the Wholesale Unit (as relevant) has certified to the Commission in writing that the condition in (a) above is met;

and *Complete the Customer Information Management EOI Building Block* has the corresponding meaning;

2.4 *Inventory Management EOI Building Block Completed* means for a particular Relevant Service and a particular Telecom Business Unit that:

- (a) processes and systems have been developed or adapted such that the Telecom Business Unit uses the same systems and processes to capture the Inventory Data that is necessary to enable the Telecom Business Unit to fulfil, assure and bill the Relevant Service for Service Providers and other Telecom Business Units ("EOI Inventory Management Systems"); and
- (b) the Manager of the ANS Unit or the Manager of the Wholesale Unit (as relevant) has certified to the Commission in writing that the EOI Inventory Management Systems have been tested and are ready for the Inventory Data to be copied from Telecom's inventory management systems existing at the Approval Date;

and *Complete the Inventory Management EOI Building Block* has the corresponding meaning;

2.5 *Migration to Inventory Management EOI Building Block Completed* means in relation to a particular Relevant Service and a particular Telecom Business Unit:

- (a) that at any time all necessary Inventory Data relating to the Relevant Service is stored in the EOI Inventory Management Systems;
- (b) that when fulfilling, assuring and billing the Relevant Service the relevant Telecom Business Unit only accesses Inventory Data from the EOI Inventory Management Systems; and
- (c) the Manager of the ANS Unit or the Manager of the Wholesale Unit (as relevant) has certified to the Commission in writing that the conditions in (a) and (b) above are met;

and *Complete the Migration to Inventory Management EOI Building Block* has the corresponding meaning;

2.6 *Order Management (Sales Order Management Component Only) EOI Building Block Completed* means in relation to a particular Relevant Service and a particular Telecom Business Unit:

- (a) a single process requiring the same end-customer data to be provided is used by Service Providers and other Telecom Business Units to order the Relevant Service from the Telecom Business Unit; and
- (b) the Manager of the ANS Unit or the Manager of Wholesale Unit (as relevant) has notified Service Providers and other Telecom Business Units in writing of the requirement in (a) above;

and *Complete the Order Management (Sales Order Management Component Only) EOI Building Block* has the corresponding meaning;

2.7 *Order Management (Service Order Management Component Only) EOI Building Block Completed* means in relation to a particular Relevant Service and a particular Telecom Business Unit:

- (a) processes and policies are in place that prioritise and schedule the fulfilment of orders ("Order Scheduling Function") from a Service Provider or another Telecom Business Unit for the Relevant Service in a way that does not take account of whether the order is from a Service Provider or another Telecom Business Unit; and
- (b) the Manager of the ANS Unit or the Manager of the Wholesale Unit (as relevant) has certified to the Commission in writing that the Order Scheduling Function prioritises and schedules orders for the Relevant Service in a way that does not take account of whether the order is from a Service Provider or another Telecom Business Unit;

and *Complete the Order Management (Service Order Management Component Only) EOI Building Block* has the corresponding meaning;

- 2.8 *Product Management EOI Building Block Completed* means for a particular Relevant Service and a particular Telecom Business Unit:
- (a) the product catalogue of services in relation to the Relevant Service is visible to Service Providers and Telecom Business Units through the B2B Gateway and Online Portal;
 - (b) the product catalogue contains definitive information on the specification, price, order mechanisms, availability, geographic coverage and service level options (if any) in relation to the Relevant Service;
 - (c) the Product Plans of Intent and Product Plans of Record (if any) for the Relevant Service are visible to Service Providers and other Telecom Business Units through the Online Portal or the Internet website of the Telecom Business Unit; and
 - (d) the Manager of the ANS Unit or the Manager of the Wholesale Unit (as relevant) has certified to the Commission in writing that the conditions (a), (b) and (c) above are met;

and *Complete the Product Management EOI Building Block* has the corresponding meaning;

- 2.9 *Service Management (Service Desk Component Only) EOI Building Block Completed* means that, in relation to a particular Relevant Service and a particular Telecom Business Unit:
- (a) Service Providers can and other Telecom Business Units must use the same processes to raise, track and escalate faults in relation to the Relevant Service;
 - (b) Service Providers can and other Telecom Business Units must use the B2B Gateway or Online Portal to raise and track faults in relation to the Relevant Service; and
 - (c) Service Providers and other Telecom Business Units are notified of service or network faults affecting the Relevant Service using the same process, timeframes and levels of information in relation to the Relevant Service (recognising that required information may be specific to a fault or Service Provider or other Telecom Business Unit);

and *Complete the Service Management (Service Desk Component Only) EOI Building Block* has the corresponding meaning;

2.10 *Workforce Management EOI Building Block Completed* means for a particular Relevant Service and a particular Telecom Business Unit:

- (a) that a single process exists for dispatching field force personnel to provision orders from Service Providers and other Telecom Business Units for that Relevant Service;
- (b) the single process referred to in (a) is initiated only in accordance with the requirement in paragraph 2.7 above that the Order Scheduling Function prioritises and schedules orders from a Service Provider or another Telecom Business Unit for the Relevant Service in a way that does not take account of whether the order is from a Service Provider or another Telecom Business Unit;
- (c) the processes by which Service Providers and other Telecom Business Units enquire about, monitor and are notified of completion of field force requests in relation to the Relevant Service are the same; and
- (d) the Manager of the ANS Unit or the Manager of the Wholesale Unit (as relevant) has certified to the Commission in writing that the conditions in (a), (b) and (c) above are met;

and *Complete the Workforce Management EOI Building Block* has the corresponding meaning;

2.11 *Completed on an Opt-In Basis* means, in relation to a building block, that the systems, processes and requirements that are a condition of that building block being completed are available to Service Providers and Telecom Business Units, but Service Providers and Telecom Business Units are not yet required to use those systems and processes or meet those requirements.

3 **INTERPRETATION**

3.1 The commentary in Part B of this Schedule is not binding on Telecom. Part B is non-binding explanatory material that describes how Telecom proposes to complete the migration of certain Relevant Services to the EOI standard, the practical issues involved and why it is done in the way Telecom proposes. It does not limit the binding requirements in Part A of this Schedule in any way, and cannot be used to aid in the interpretation of the binding requirements in Part A.

3.2 References in this Schedule to a service being available means the service being available subject to normal provisioning process requirements that are consistent with usual industry good practice.

3.3 Unless the context otherwise requires, references in this Schedule to *the same* means exactly the same, subject to:

- (a) trivial differences;
- (b) differences relating to;
 - (i) credit requirements and vetting procedures;
 - (ii) payment procedures;
 - (iii) matters of national and crime-related security, physical security, security required to protect the operational integrity of the network, or any other security requirements agreed by Telecom and the Commission;
 - (iv) provisions relating to the termination of supply;
 - (v) provisions relating to dispute resolution (to the extent necessary because Telecom is one company);
 - (vi) requirements for a safe working environment; and
- (c) differences that are agreed by Telecom and the Commission in writing;
- (d) differences that are requested by a Service Provider in writing and agreed to by Telecom;
- (e) differences that are specified elsewhere in these Undertakings; and
- (f) differences relating to terms required by a residual terms determination under subpart 2A of Part 2 of the Act.

3.4 References in this schedule to a *vendor or service supply contract signed for development* means that the vendor or service supply contract for the design phase using the chosen technology has been signed or is in the final stages of negotiation before signing.

3.5 References in this Schedule to:

- (a) Basic UBA or BUBA means both BUBA without POTS and BUBA with POTS unless stated otherwise; and
- (b) Enhanced UBA or EUBA means both EUBA with POTS and EUBA without POTS unless stated otherwise.

3.6 Where terms are defined in the main body of these Undertakings those definitions apply to this Schedule 1.

3.7 When interpreting this Schedule 1, the interpretation provisions in clause 2 of the main body of these Undertakings apply.

4 **MEASUREMENT AND REPORTING OF MILESTONES**

4.1 Telecom will provide the IOG and the Commission with quarterly reports which report on Telecom's progress in achieving the milestones set out in this Schedule, including details of;

- (a) whether Telecom considers it has achieved any milestone due to be achieved in the quarterly period preceding the report;
- (b) whether Telecom expects to achieve any milestone due to be achieved in the quarterly period following the report;
- (c) if Telecom has not achieved any milestone due to be achieved in the quarterly period preceding the report, or does not expect to achieve any milestone due to be achieved in the quarterly period following the report:
 - (i) the circumstances giving rise to Telecom's inability to achieve the milestone; and
 - (ii) any steps that Telecom intends to take to remedy the non-achievement of the milestone or to reduce the likelihood of not achieving the milestone (as the case may be).

4.2 For the avoidance of doubt, nothing in clause 4.1 or in any report provided by Telecom under clause 4.1 limits or affects Telecom's obligations under these Undertakings in relation to the milestones set out in this Schedule.

5 UCLL MIGRATION PLAN

- 5.1 Telecom will migrate UCLL to the EOI standard in accordance with the following migration plan:

UCLL migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
UCLL available to Service Providers (in accordance with any soft launch or other launch requirements specified in the UCLL STD).	The date(s) specified by the UCLL STD	Enforceable Milestone
Subject to paragraph 3.4, vendor or service supply contract signed for development of the B2B Gateway required for the ANS Unit to Complete the Channels EOI Building Block.	31 March 2008	Tracking Milestone
Subject to paragraph 3.4, vendor or service supply contract signed for development of a single process requiring the same end-customer data to be provided for Service Providers and other Telecom Business Units to order Relevant Network Access Services from the ANS Unit to enable the ANS Unit to Complete the Order Management (Sales Order Management Component Only) EOI Building Block.	1 July 2008	Tracking Milestone
Subject to paragraph 3.4, vendor or service supply contract signed for development or adaptation of processes and systems that have capability to capture the Inventory Data that enables the ANS Unit to fulfil, assure and bill Relevant Network Access Services to enable the ANS Unit to Complete the Inventory Management EOI Building Block.	1 July 2008	Tracking Milestone
Subject to paragraph 3.4, vendor or service supply contract signed for development of the process by which Service Providers and Telecom Business Units enquire about, monitor and are notified of completion of field force requests to enable the ANS Unit to Complete the Workforce Management EOI Building Block.	30 September 2008	Tracking Milestone

UCLL migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
<p>UCLL is consumed by Telecom Business Units (on the same financial terms and conditions as the UCLL STD) as an input in the supply of all:</p> <ul style="list-style-type: none"> • UNS (Over Ethernet) services; • BUBA without POTS services (Over Ethernet and Over ATM); and • EUBA without POTS services. 	31 December 2008	Enforceable Milestone
ANS Unit informs Service Providers and Telecom Business Units of the data format that will be required to raise service desk trouble tickets when Service Management (Service Desk Component Only) EOI Building Block Completed.	31 December 2008	Tracking Milestone
Detailed Design Document v 1.0 for the ANS Unit EOI Inventory Management Systems finalised and approved by the Manager of the ANS Unit.	31 December 2008	Tracking Milestone
Pilots of B2B Gateway and Online Portal in relation to UCLL services commenced with at least one Service Provider in each pilot.	31 March 2009	Tracking Milestone
The EOI capability building blocks listed in paragraph (b) of the definition of December 2009 Requirements are Completed on an Opt-in Basis for the ANS Unit for the supply of all UCLL services.	30 June 2009	Tracking Milestone
December 2009 Requirements met for the supply of all UCLL services.	31 December 2009	Enforceable Milestone
UCLL is consumed by Telecom Business Units as an input in the supply of all Frame Relay Services (where delivered over copper lines).	31 December 2009	Enforceable Milestone

UCLL migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
UCLL is consumed by Telecom Business Units as an input in the supply of UPC services (where delivered over copper lines) ordered after this date.	31 December 2009	Enforceable Milestone
UCLL is consumed by Telecom Business Units as an input in the supply of all: <ul style="list-style-type: none"> • UNS (Over Ethernet) services; • BUBA without POTS services (Over Ethernet and Over ATM); and • EUBA without POTS services. 	31 December 2009	Enforceable Milestone
Inventory Management EOI Building Block Completed for the ANS Unit for supply of all UCLL services.	31 December 2009	Tracking Milestone
Order Management (Service Order Management Component Only) EOI Building Block Completed for the ANS Unit for UCLL services ordered after this date.	30 June 2010	Tracking Milestone
Billing Management EOI Building Block Completed for the ANS Unit for UCLL services ordered after this date.	30 June 2010	Tracking Milestone
Migration of UCLL Inventory Data to EOI Inventory Management Systems (developed to Complete the Inventory Management EOI Building Block for the ANS Unit for UCLL) has commenced.	30 June 2010	Tracking Milestone
Workforce Management EOI Building Block Completed for the ANS Unit for UCLL services ordered after this date.	31 December 2010	Enforceable Milestone
Migration to Inventory Management EOI Building Block Completed in relation to all UCLL services.	30 June 2011	Tracking Milestone

UCLL migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
EOI standard met for the supply of all UCLL services.	31 December 2011	Enforceable Milestone
UCLL is consumed by Telecom Business Units as an input in the supply of all UPC services (where delivered over copper lines).	31 December 2011	Enforceable Milestone

6 UCLL BACKHAUL MIGRATION PLAN

6.1 Telecom will migrate UCLL Backhaul to the EOI standard in accordance with the following migration plan:

UCLL Backhaul migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
UCLL Backhaul available to Service Providers (in accordance with any soft launch or other launch requirements specified in the UCLL Backhaul STD).	The date(s) specified by the UCLL Backhaul STD	Enforceable Milestone
The EOI capability building blocks listed in paragraph (b) of the definition of December 2009 Requirements are Completed on an Opt-in Basis for the ANS Unit for all UCLL Backhaul services.	30 June 2009	Tracking Milestone
December 2009 Requirements met for the supply of all UCLL Backhaul services.	31 December 2009	Enforceable Milestone
UCLL Backhaul is consumed by Telecom Business Units as an input in the supply of: <ul style="list-style-type: none"> • any UNS (Over Ethernet) service; and • any EUBA and BUBA (Over Ethernet) service; where access to Telecom's Regional Backhaul Network is required to provide the service.	31 December 2009	Enforceable Milestone
Order Management (Service Order Management Component Only) EOI Building Block Completed for ANS Unit for UCLL Backhaul services ordered after this date.	30 June 2010	Tracking Milestone
Workforce Management EOI Building Block Completed for ANS Unit for UCLL Backhaul services ordered after this date.	31 December 2010	Enforceable Milestone
EOI standard met for the supply of all UCLL Backhaul services.	31 December 2011	Enforceable Milestone

7 UCLL CO-LOCATION MIGRATION PLAN

7.1 Telecom will migrate UCLL Co-location to the EOI standard in accordance with the following migration plan:

UCLL Co-location migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
UCLL Co-location available to Service Providers (in accordance with any soft launch or other launch requirements specified in the UCLL Co-Location STD).	The date(s) specified in the UCLL Co-Location STD	Enforceable Milestone
EOI standard met for all UCLL Co-location services provided to a Telecom Business Unit for UCLL Access Equipment installed in a Telecom local exchange between the Approval Date and 31 December 2008.	31 December 2008	Enforceable Milestone
EOI standard met for all new UCLL Co-location services provided after this date to Service Providers and Telecom Business Units.	31 December 2008	Enforceable Milestone
EOI standard applies to all UCLL Co-location services provided to a Telecom Business Unit for UCLL Access Equipment installed in a particular Telecom local exchange before the Approval Date.	Later of: - 31 December 2008; or - When a Service Provider first obtains UCLL Co-location in the particular exchange	Enforceable Milestone

Note: See paragraph 17.7 regarding the application of the EOI standard to UCLL Co-location services.

8 BUBA AND EUBA MIGRATION PLAN

8.1 Telecom will migrate BUBA and EUBA to the EOI standard in accordance with the following migration plan:

BUBA migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
BUBA and EUBA available to Service Providers (in accordance with any soft launch or other launch requirements specified in the UBA STD).	The date(s) specified in the UBA STD	Enforceable Milestone
Subject to paragraph 3.4, vendor or service supply contract signed for development of the B2B Gateway to enable the Wholesale Unit to Complete the Channels EOI Building Block.	31 March 2008	Tracking Milestone
Subject to paragraph 3.4, vendor or service supply contract signed for development of a single process that requires the same end-customer data to be provided for Service Providers and other Telecom Business Units to order Relevant Wholesale Services (other than Resale Services) from the Wholesale Unit to enable the Wholesale Unit to Complete the Order Management (Sales Order Management Component Only).	1 July 2008	Tracking Milestone
Subject to paragraph 3.4, vendor or service supply contract signed for development or adaptation of processes and systems that have the capability to capture the Inventory Data that enables the Wholesale Unit to fulfil, assure and bill Relevant Wholesale Services (other than Resale Services) to enable the Wholesale Unit to Complete the Inventory Management EOI Building Block.	1 July 2008	Tracking Milestone
Wholesale Unit informs Service Providers and other Telecom Business Units of the data format that will be required to raise service desk trouble tickets when the Service Management (Service Desk Component Only) EOI Building Block Completed.	31 December 2008	Enforceable Milestone

BUBA migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
Detailed Design Document v.1.0 for the Wholesale Unit EOI Inventory Management Systems finalised and approved by the Manager of the Wholesale Unit.	31 December 2008	Tracking Milestone
Pilots of B2B Gateway and Online Portal in relation to BUBA and EUBA commenced with at least one Service Provider in each pilot.	31 March 2009	Tracking Milestone
End-customer trials underway for a new Retail Broadband Service that consumes BUBA and/or EUBA as an input.	30 June 2009	Tracking Milestone
December 2009 Requirements met for the supply of all BUBA and EUBA services.	31 December 2009	Enforceable Milestone
BUBA and/or EUBA is consumed by Telecom Business Units as an input in the supply of Retail Broadband Services that are provided to new customers after this date (except where Customer Difficult Personal Circumstances apply).	31 December 2009	Enforceable Milestone
Order Management (Service Order Management Component Only) EOI Building Block Completed for Wholesale Unit for orders received after this date for all BUBA and EUBA services.	30 June 2010	Tracking Milestone
Billing Management EOI Building Block Completed for Wholesale Unit for orders received after this date for all BUBA and EUBA services.	30 June 2010	Tracking Milestone
90% of Retail Broadband Service customers (who were purchasing a Retail Broadband Service as at 31 December 2009 and who are still purchasing a Retail Broadband Service) migrated to new Retail Broadband Services that consume BUBA or EUBA as an input.	31 December 2010	Enforceable Milestone

BUBA migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
Migration of BUBA and EUBA Inventory Data to EOI Inventory Management Systems (developed to enable the Wholesale Unit to Complete the Inventory Management EOI Building Block for BUBA services and EUBA services) has commenced.	31 December 2010	Tracking Milestone
EOI standard met for supply of all BUBA and EUBA services.	31 December 2011	Enforceable Milestone
100% of Retail Broadband Service customers migrated to new Retail Broadband Services that consume BUBA or EUBA as an input.	31 December 2011	Enforceable Milestone

Note: See paragraph 17.8 regarding the application of the EOI standard to BUBA with POTS and EUBA with POTS.

9 UBA BACKHAUL MIGRATION PLAN

9.1 Telecom will migrate UBA Backhaul to the EOI standard in accordance with the following migration plan:

UBA Backhaul migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
UBA Backhaul available to Service Providers (in accordance with any soft launch or other launch requirements specified in the UBA Backhaul STD).	The dates specified in UBA Backhaul STD.	Enforceable Milestone
Wholesale Unit informs Service Providers and other Telecom Business Units of the data format that will be required to raise service desk trouble tickets when the Service Management (Service Desk Component Only) EOI Building Block Completed.	31 December 2008	Tracking Milestone
December 2009 Requirements met for the supply of all UBA Backhaul services.	31 December 2009	Enforceable Milestone
UBA Backhaul service is consumed by Telecom Retail Units as an input in the supply of all Retail Broadband Services that use EUBA or BUBA (Over Ethernet) as an input where a determined Wholesale Unit backhaul service is required by the Retail Units.	31 December 2009	Enforceable Milestone
Order Management (Service Order Management Component Only) EOI Building Block Completed for Wholesale Unit for UBA Backhaul services ordered after this date.	30 June 2010	Tracking Milestone
Workforce Management EOI Building Block Completed for Wholesale Unit for UBA Backhaul services.	31 December 2010	Enforceable Milestone
EOI standard met for supply of all UBA Backhaul services.	31 December 2011	Enforceable Milestone

10 HSNS, UNS (OVER ETHERNET) AND UPC MIGRATION PLAN

10.1 Telecom will migrate HSNS, UNS (Over Ethernet) and UPC to the EOI standard in accordance with the following migration plan:

HSNS, UNS and UPC migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
UNS (Over ATM) and UPC available to Service Providers.	Approval Date	Tracking Milestone
UNS (Over Ethernet) available to Telecom Business Units and Service Providers.	31 December 2008	Enforceable Milestone
If a customer was able to receive UNS (Over ATM) at a specific location on the Approval Date, they can receive UNS (Over Ethernet) at that location.	31 December 2009	Tracking Milestone
December 2009 Requirements met for the supply of all: <ul style="list-style-type: none"> • HSNS services; and • UNS (Over Ethernet) services. 	31 December 2009	Enforceable Milestone
New orders for UPC received after this date supplied on the December 2009 Requirements.	31 December 2009	Tracking Milestone
Wholesale Unit Stop Sell to New Customers for UNS (Over ATM).	31 December 2009	Tracking Milestone
Order Management (Service Order Management Component Only) EOI Building Block Completed for Wholesale Unit for orders received after this date for: <ul style="list-style-type: none"> • HSNS services; • UNS (Over Ethernet) services; and • UPC services. 	30 June 2010	Tracking Milestone
Billing Management EOI Building Block Completed for Wholesale Unit for orders received after this date for: <ul style="list-style-type: none"> • HSNS services; • UNS (Over Ethernet) services; and • UPC services. 	30 June 2010	Tracking Milestone

HSNS, UNS and UPC migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
EOI standard met for the supply of all HSNS, UNS (Over Ethernet) and UPC services.	31 December 2011	Enforceable Milestone
UNS (Over ATM) Withdraw Service (except where there is significant customer impact in withdrawing this service).	31 December 2011	Enforceable Milestone

11 RESALE SERVICES MIGRATION PLAN

- 11.1 Telecom will make the following service delivery improvements in relation to Resale Services that are Wholesale Relevant Services:

Resale Services milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
<p><i>Broadband Wiring Only Orders</i></p> <p>Systems and processes are in place such that when a broadband service related field force work order from a Service Provider is changed at the request of the end-customer, Service Providers are advised of the changes or additions when the work order has been completed (instead of when the bill is generated for the Service Provider).</p>	31 March 2008	Enforceable Milestone
<p><i>NCA provisioning</i></p> <p>Service Providers are able to submit NCA orders online.</p> <p>Service Providers are able to submit NCA orders concurrently with a request for a fixed PSTN line circuit and/or broadband service for the same end-customer.</p>	31 December 2008	Enforceable Milestone
<p><i>Visibility of existing orders on a customer line</i></p> <p>When an order from a Service Provider in relation to a Resale Service is rejected because an order already exists in relation to that fixed access line, the Service Provider is provided with the same information as the Telecom Business Units have access to, in similar timeframes, about why the order is rejected and when the open service order will close.</p>	31 December 2008	Enforceable Milestone
<p><i>Unmet broadband demand</i></p> <p>Systems and processes are available and used to capture service requests from Service Providers and Telecom Business Units relating to broadband in a location where the network capacity to provide the service does not exist.</p> <p>Policies are in place which require that decisions to install broadband services will not take into account whether such service requests are made by Service Providers or Telecom Business Units.</p>	31 December 2008	Enforceable Milestone

Resale Services milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
<p><i>Visibility of Line Status</i></p> <p>Systems are available to Service Providers that allow Service Providers to check whether or not a line is "intact" within a similar timeframe as Telecom Business Units are able to check whether or not a line is "intact".</p>	31 December 2008	Enforceable Milestone
<p><i>Access to service company schedules</i></p> <p>Service Providers are able to view the work schedule of service companies, and book service requests in a similar timeframe as Telecom Business Units.</p>	31 December 2009	Enforceable Milestone
<p><i>PSTN number reservation</i></p> <p>Service Providers are able to review available PSTN numbers and select or reserve an available PSTN number for their end-customer in a similar timeframe as Telecom Business Units.</p>	31 December 2009	Enforceable Milestone

12 PSTN MIGRATION PLAN

12.1 Rather than redesigning PSTN Services to consume UCLL, Telecom commits to the following alternative migration plan:

Voice Service migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
Subject to paragraph 3.4, vendor or service supply contract signed for development of the core capability required for the Retail Units to deliver a voice service which is designed to be a primary line voice service that uses EUBA without POTS (or an alternative Relevant Wholesale Service with equivalent or better real-time performance to EUBA and supplied at the same or higher standard of equivalence as EUBA) as an input.	1 July 2008	Tracking Milestone
A Retail Unit voice service which is designed to be a primary line voice service and that uses EUBA without POTS (or an alternative Relevant Wholesale Service with equivalent or better real-time performance to EUBA and supplied at the same or higher standard of equivalence as EUBA) as an input is ready for service in an internal Telecom trial and can be demonstrated.	31 March 2009	Tracking Milestone
A Retail Unit voice service which is designed to be a primary line voice service and that uses EUBA without POTS (or an alternative Relevant Wholesale Service with equivalent or better real-time performance to EUBA and supplied at the same or higher standard of equivalence as EUBA) as an input is ready for service in an external trial and can be demonstrated.	30 September 2009	Enforceable Milestone
EUBA without POTS (or an alternative Relevant Wholesale Service with equivalent or better real-time performance to EUBA and supplied at the same or higher standard of equivalence as EUBA) is available to 50% of Existing PSTN Lines.	31 December 2009	Enforceable Milestone

Voice Service migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
A Retail Unit voice service which is designed to be a primary line voice service and that uses EUBA without POTS (or an alternative Relevant Wholesale Service with equivalent or better real-time performance to EUBA and supplied at the same or higher standard of equivalence as EUBA) as an input is available for purchase by customers of the Retail Units.	31 December 2009	Tracking Milestone
More than 1500 distribution cabinets have been installed or equipped with ADSL2+ or equivalent DSL capability (e.g. VDSL capability) in Telecom Zones 1, 2 and 3, with DSLAMs installed and operational. At least 99% of lines served off these cabinets and within those zones will be engineered to have a maximum line loss of 60db measured at 1024kbps at the external termination point.	30 June 2010	Tracking Milestone
More than 17,000 telephone lines are being supplied with a Retail Unit voice service which is designed to be a primary line voice service and that consumes EUBA without POTS (or an alternative Relevant Wholesale Service with equivalent or better real-time performance to EUBA and supplied at the same or higher standard of equivalence as EUBA) as an input.	31 December 2010	Enforceable Milestone
More than 2200 distribution cabinets have been installed or equipped with ADSL2+ or equivalent DSL capability (e.g. VDSL capability) in Telecom Zones 1, 2 and 3, with DSLAMs installed and operational. At least 99% of lines served off these cabinets and within those zones will be engineered to have a maximum line loss of 60db measured at 1024kbps at the external termination point.	31 December 2010	Enforceable Milestone

Voice Service migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
<p>More than 2800 distribution cabinets have been installed or equipped with ADSL2+ or equivalent DSL capability (e.g. VDSL capability) in Telecom Zones 1, 2 and 3, with DSLAMs installed and operational. At least 99% of lines served off these cabinets and within those zones will be engineered to have a maximum line loss of 60db measured at 1024kbps at the external termination point.</p>	30 June 2011	Tracking Milestone
<p>EUBA without POTS (or an alternative Relevant Wholesale Service with equivalent or better real-time performance to EUBA and supplied at the same or higher standard of equivalence as EUBA) is available to 80% of Existing PSTN Lines.</p>	31 December 2011	Enforceable Milestone
<p>More than 3500 distribution cabinets have been installed or equipped with ADSL2+ or equivalent DSL capability (e.g. VDSL capability) in Telecom Zones 1, 2 and 3, with DSLAMs installed and operational. At least 99% of lines within those zones will be engineered to have a maximum line loss of 60db measured at 1024kbps at the external termination point.</p>	31 December 2011	Enforceable Milestone
<p>Telecom will provide an additional binding PSTN migration plan to the Minister, IOG and Commission which must include:</p> <ul style="list-style-type: none"> • additional Tracking Milestones for the period of 1 January 2013 to 31 December 2015 which demonstrate a migration path that is manifestly consistent with achievement by Telecom of the 2015 and 2020 Enforceable Milestones set out below; and 	30 June 2011	Enforceable Milestone

Voice Service migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
<ul style="list-style-type: none"> • a description of the technical solution or solutions Telecom has deployed to facilitate this migration, and evidence that demonstrates these solutions and any associated systems have been designed to be capable of supporting a migration of the size and speed set out in the migration plan; and • a description of the arrangements Telecom has taken or will take to facilitate Service Providers purchasing Resale Services to migrate those services off the PSTN Services at a pace that is consistent with the 2015 and 2020 Enforceable Milestones set out below. 		
<p>More than 15% of Fixed Voice Customer Lines in Telecom Zones 1, 2 and 3 as at 31 December 2012 are being supplied with a Retail Unit voice service which is designed to be a primary line voice service and that uses EUBA without POTS (or an alternative Relevant Service supplied at the same or higher standard of equivalence as EUBA) as an input.</p> <p>Telecom will have its compliance with this Enforceable Milestone audited by an External Auditor on request from the IOG or Commission.</p> <p>(Refer example below)</p>	31 December 2012	Enforceable Milestone
<p>The number of Telecom fixed access lines using Telecom PSTN Services will be less than 40% of Existing PSTN Lines. All other Telecom fixed access lines that are supplied with a Retail Unit voice service which is designed to be a primary line voice service will have been migrated onto a retail service that uses a Relevant Service as an input which meets the EOI requirements in these Undertakings.</p>	31 December 2015	Enforceable Milestone

Voice Service migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
All Telecom customers migrated off PSTN Services and Telecom has ceased selling PSTN Services to customers.	31 December 2020	Enforceable Milestone

Example

To meet the 2012 Enforceable Milestone, Telecom must get 15% of its own retail customer lines in the relevant zones on to a new voice service that consumes an EOI input. Telecom lines that are being used by Service Providers to provide end-customer services (for example by the Service Provider having unbundled access to the line via the UCLL service or by the Service Provider receiving the EUBA without POTS service or a resold Homeline service from the Wholesale Unit) will not be counted when determining if this 15% target has been met.

12.2 On or before 30 June in each of the years 2009 and 2010 Telecom will also provide a report to the Minister, the IOG and the Commission setting out Telecom's progress towards meeting the 2012, 2015 and 2020 Enforceable Milestones set out in this PSTN Migration Plan, including:

- the number of Existing PSTN Lines migrated off the PSTN Services as at 31 May that year, and a forecast of the number of Existing PSTN Lines Telecom reasonably expects to have migrated off the PSTN Services by 31 May the following year;
- Telecom's progress in defining the technical solution or solutions it will adopt to achieve the migration targets referenced in the 2012, 2015 and 2020 Enforceable Milestones set out in this PSTN Migration Plan.

The IOG may report publicly each year at a summary level on the content of these reports.

12.3 As set out in the PSTN Migration Plan, the Enforceable milestones that Telecom must achieve by 31 December 2011 will mean that 99% of lines in Telecom Zones 1, 2 and 3 (being at least 80% of Existing PSTN Lines) will be engineered to have a maximum line loss of 60db measured at 1024kbps at the external termination point.

12.4 Telecom expects that as a consequence of achieving the Enforceable milestones in the PSTN Migration Plan as at 31 December 2011 there will be a significant increase in broadband performance within the Local Access Network and, in particular, the engineering design rules applied to the Local Access Network as part of those Enforceable milestones will mean that:

- (a) 84% of all Existing PSTN Lines will be technically capable of 10 Mbps or better within the Local Access Network; and

- (b) 89% of all Existing PSTN Lines will be technically capable of 5 Mbps or better within the Local Access Network;

where technically capable means in respect of (a) and (b) above that the Local Access Network component of the Existing PSTN Lines is estimated to be capable of this performance based upon cable attenuation data, engineering design rules, and equipment type. These measures do not take local environmental influences such as customer premises wiring or interference effects into account, and therefore may not reflect actual customer experience.

- 12.5 Paragraphs 12.3 and 12.4 do not add to or affect the Enforceable milestones in the PSTN Migration Plan. Paragraph 12.4 is not enforceable and failure by Telecom to achieve the outcomes described in paragraphs 12.4 (a) and (b) above will have no consequence under these Undertakings.

13 ISDN MIGRATION PLAN

13.1 Rather than redesigning existing ISDN Services to consume UCLL, Telecom commits to the following alternative migration plan:

ISDN migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
Telecom will meet the Resale Equivalence standard for the resale of ISDN Services that are Relevant Wholesale Services.	31 December 2009	Enforceable Milestone
Telecom will offer an IP Trunking Service that consumes HSNS as an input.	31 December 2009	Enforceable Milestone
Telecom will offer an IP Trunking Service that: <ul style="list-style-type: none"> consumes UNS as an input where it is feasible to use UNS inputs; and otherwise consumes UPC as an input. 	31 December 2010	Enforceable Milestone
Telecom will offer an IP Trunking Service that consumes HSNS, UNS or UPC as an input.	31 December 2011	Enforceable Milestone
Telecom will Withdraw Service for all ISDN Services.	31 December 2020	Enforceable Milestone

13.2 Telecom will act in a way that is consistent with a strategy to ultimately migrate ISDN Service customers to EOI input based services and cease selling ISDN Services. As such, where Telecom has developed and is offering alternative services to ISDN Services (that consume inputs that will be supplied to the EOI standard by 2011) and these alternative services meet the customer's needs, these alternative services will be offered to the customer.

14 **OUTLIER BROADBAND SERVICES MIGRATION PLAN**

14.1 Rather than redesigning existing Outlier Broadband Services to consume EOI inputs, Telecom commits to the following alternative migration plan for these services:

Outlier migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
All orders for Outlier Broadband Services received after this date will be provisioned using Outlier Broadband Services that are based on a Telecom Retail Broadband Service that consumes BUBA or EUBA delivered to the December 2009 Requirements standard as an input.	31 December 2009	Enforceable Milestone
All orders for Outlier Broadband Services received after this date will be provisioned using Outlier Broadband Services that are based on a Telecom Retail Broadband Service that consumes BUBA or EUBA delivered to the EOI standard as an input.	31 December 2011	Enforceable Milestone

15 ONE OFFICE MIGRATION PLAN

- 15.1 Rather than redesigning One Office Services to consume EOI inputs, Telecom commits to the following alternative migration plan:

One Office migration milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
The Retail Units will Stop Innovation for One Office Services.	31 December 2008	Enforceable Milestone
The Retail Units will Stop Sell to New Customers for One Office Services. For the avoidance of doubt after this date when an existing One Office contract expires, the customer will have the opportunity to extend that contract.	31 December 2009	Enforceable Milestone
A Retail Unit will make available to customers a new business grade managed network layer data service (New Data Service) that consumes HSNS, UNS (Over Ethernet), UPC or another Wholesale Unit input service that is supplied on a basis that meets the December 2009 Requirements.	31 December 2009	Enforceable Milestone
At least 500 New Data Service data tails are being provided to Retail Unit customers.	31 December 2010	Enforceable Milestone
The New Data Service will consume HSNS, UNS (Over Ethernet), UPC or another Wholesale Unit input service that is supplied to the EOI standard.	31 December 2011	Enforceable Milestone

- 15.2 Telecom will act in a way that is consistent with a strategy to ultimately migrate One Office Service customers to EOI input based business grade managed data services and decommission the One Office Services.

16 OTHER LEGACY DATA SERVICES MIGRATION PLAN

16.1 Rather than redesigning Other Legacy Data Services to consume EOI inputs, Telecom commits to the following alternative migration plan:

Other Legacy Data milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
<p>The Retail Units will Stop Innovation and Stop Sell to New Customers for all of the following services:</p> <ul style="list-style-type: none"> • DSTN Services; • X25; and • Netway Integrated Access. 	31 December 2007	Enforceable Milestone
<p>The Retail Units will Stop Innovation for all of the following services:</p> <ul style="list-style-type: none"> • Analogue Data services; • ATM; • Corporate Internet Data; • Dedicated Internet Access; • High Speed Digital Data (using ATM); • IP Net; • Lanlink; • Megalink; • Metro IP; and • MetroLAN Extension. 	31 December 2008	Enforceable Milestone
<p>The Retail Units will Withdraw Service for DSTN Services.</p>	31 December 2008	Enforceable Milestone
<p>The Retail Units will Withdraw Service for all of the following services:</p> <ul style="list-style-type: none"> • X25; and • Netway Integrated Access. 	30 June 2009	Enforceable Milestone

Other Legacy Data milestone obligation	Date by which milestone obligation must be achieved	Status of milestone obligation
<p>The Retail Units will Stop Sell to New Customers for all of the following services:</p> <ul style="list-style-type: none"> • Analogue Data services; • ATM; • Corporate Internet Data; • Dedicated Internet Access; • High Speed Digital Data (using ATM); • IP Net; • Lanlink; • Megalink; • Metro IP; and • MetroLAN Extension. 	31 December 2009	Enforceable Milestone

16.2 Telecom will act in a way that is consistent with a strategy to ultimately migrate all Other Legacy Data Services customers to EOI input based services and decommission the relevant legacy data platforms.

17 GENERAL EQUIVALENCE MIGRATION OBLIGATIONS

Highest level of equivalence as soon as practicable

- 17.1 If a material change in circumstances makes it practicable to improve or accelerate a Tracking milestone or an Enforceable milestone in a migration plan in this Schedule for a Relevant Service, Telecom will propose to the Commission a variation to that migration plan to give effect to that improvement or acceleration including any consequential changes to other parts of the migration plan. Any such changes to the migration plan shall only become effective with the consent of the Commission.

Use of alternative equivalence based inputs

- 17.2 Where in this Schedule Telecom commits to consume a specified input service in the provision of another service, Telecom may choose to consume an alternative input service provided the alternative is being supplied to Telecom Business Units and Service Providers on the same or a better standard of equivalence as that for the specified input service. Where Telecom chooses to consume an alternative input, Telecom will report to the IOG on the change, the reasons for the change, and provide an explanation to confirm that the alternative is being supplied to Telecom Business Units and Service Providers on the same or a better standard of equivalence as that for the specified input service.

Consequence of breach of Legacy migration plan

- 17.3 If Telecom is in material default in achieving an Enforceable milestone in a migration plan in paragraphs 12 to 16 (inclusive) then, as soon as practicable after becoming aware of that default, Telecom will give the Minister written notice of the default.

- 17.4 If:

- (a) the Minister receives a notice from Telecom under clause 17.3; or
- (b) in the Minister's opinion, Telecom is in material default in achieving an Enforceable milestone in a migration plan in paragraphs 12 to 16 (inclusive),

the Minister may give written notice to Telecom requiring Telecom to remedy the default ("Remedy Notice").

- 17.5 If Telecom receives a Remedy Notice and Telecom is in material default in achieving an Enforceable milestone in a migration plan in paragraphs 12 to 16 (inclusive) and Telecom does not remedy that default to the Minister's satisfaction within 60 working days of receipt of the Remedy Notice, the Minister may give Telecom written notice voiding the relevant migration plan ("Voiding Notice") and Telecom's obligations in respect of the services covered by that migration plan shall then be deemed to be to start consuming EOI inputs in the

provision of those services as soon as practicable after receipt of the Voiding Notice.

- 17.6 Nothing in paragraph 17.5 excuses Telecom from any failure to meet an Enforceable milestone or from the legal consequences of such failure.

UCLL Co-location for existing UCLL Access Equipment

- 17.7 Where the EOI standard applies to the provision of UCLL Co-location, the UCLL Co-location services provided to Telecom Business Units and the terms and conditions for such UCLL Co-location services can, for UCLL Access Equipment that was first installed in exchanges prior to the Approval Date, be different from the UCLL Co-location services provided to, and the terms and conditions for, Service Providers to the extent necessary to ensure that Telecom is not required to relocate or make any alterations to that equipment.

Differences in the systems and processes for BUBA with POTS and EUBA with POTS

- 17.8 In relation to the application of the EOI standard to BUBA with POTS or EUBA with POTS, differences in the systems and processes (including operational support processes) used by Telecom for the delivery of the service to itself and to Service Providers ("Delivery Processes") will be permitted where:
- (a) because Telecom is providing both the EUBA service or BUBA service and the active analogue telephone service to the same party (i.e. both to itself or both to a Service Provider) part of the Delivery Process for the unbundled bitstream access service (for example, the investigation of faults) overlaps with, and cannot practicably be separated from, the Delivery Process for the active analogue telephone service (which will not meet the EOI standard) and as a result the process used is different from the EOI Delivery Process for the unbundled bitstream access service; and
 - (b) the differences from the EOI Delivery Process for the unbundled bitstream access service are of a minor nature and do not materially impact on the quality of the unbundled bitstream access service;
- 17.9 Within 6 months of the application of the EOI standard to BUBA with POTS and EUBA with POTS, Telecom will complete an audit of the Delivery Process for these services in order to identify the specific circumstances where there is a delivery process overlap as described in paragraph 17.8(a) above and make this transparent to the IOG, the Commission and Service Providers.

Consent Delays

- 17.10 If, despite the exercise of reasonable diligence by Telecom, an application (or series of applications) for approvals or other consents required by law to undertake the cabinet development, fibre roll out and associated work required to meet a EUBA Coverage Milestone in the PSTN migration plan is declined or granted subject to conditions ("Consent Problem"), and, despite Telecom having

taken reasonable steps to mitigate the effects of that Consent Problem, the Consent Problem will materially delay or has materially delayed Telecom's overall ability to meet that EUBA Coverage Milestone then:

- (a) as soon as practicable, but no later than 20 Working Days before the date on which the EUBA Coverage Milestone is due to be met, Telecom may request the Commission to extend the date by which Telecom will be required to meet that EUBA Coverage Milestone by the period of that delay or such other period as the Commission thinks is reasonable in the circumstances; and
- (b) subject to paragraphs 17.11 and 17.18, the Commission may grant such an extension if it considers the extension to be appropriate.

17.11 The Commission is not required to consider a request from Telecom to extend the date by which Telecom will be required to meet an EUBA Coverage Milestone as a result of a Consent Problem in accordance with paragraph 17.10 unless, at the time Telecom makes a request under paragraph 17.10(a) or as soon as reasonably practicable after:

- (a) Telecom consults with the Commission regarding the details of and reasons for the Consent Problem, the steps being taken by Telecom to mitigate the effects of that Consent Problem, the delay that will be caused or the delay already caused by the Consent Problem and the milestone due date extension proposed by Telecom; and
- (b) Telecom provides the Commission with a report from an independent expert (whose appointment was agreed to by the Commission) on whether or not, in his or her opinion:
 - (i) the Consent Problem has occurred;
 - (ii) Telecom exercised reasonable diligence to prevent the Consent Problem occurring;
 - (iii) Telecom has taken reasonable steps to mitigate the effects of the Consent Problem;
 - (iv) Telecom's overall ability to meet the EUBA Coverage Milestone will be or has been materially delayed as a result of the Consent Problem; and
 - (v) the extension to the due date for the EUBA Coverage Milestone proposed by Telecom is appropriate in the circumstances.

17.12 Telecom will provide the Commission with any other information that the Commission reasonably requires to consider Telecom's request for an extension under clause 17.10.

17.13 If the Commission extends the date by which Telecom is required to meet an EUBA Coverage Milestone, then Telecom will publish a revised PSTN migration plan that includes the new due date for the EUBA Coverage Milestone on its Internet website.

New Cabinetisation Requirements

17.14 If the Commission issues a determination in relation to the unbundled copper local loop Designated Access Service after the Approval Date and that determination requires Telecom to provide Service Providers with access to Telecom's distribution cabinets in a new manner or in accordance with a new process ("New Cabinetisation Requirements") and, despite Telecom having taken reasonable steps to mitigate the effects of those requirements this will materially delay or has materially delayed Telecom's overall ability to meet an EUBA Coverage Milestone in the PSTN migration plan then:

- (a) as soon as practicable, but no later than 20 Working Days before the date on which the EUBA Coverage Milestone is due to be met, Telecom may request the Commission to extend the date by which Telecom will be required to meet that EUBA Coverage Milestone by the period of that delay or such other period as the Commission thinks is reasonable in the circumstances; and
- (b) Subject to paragraphs 17.15 and 17.18, the Commission may grant such an extension if it considers the extension to be appropriate.

17.15 The Commission is not required to consider a request from Telecom to extend the date by which Telecom will be required to meet an EUBA Coverage Milestone as a result of New Cabinetisation Requirements in accordance with paragraph 17.14 unless;

- (a) where the Commission has provided Telecom with adequate opportunity to comment on the New Cabinetisation Requirements of the determination before issuing the determination, Telecom has advised the Commission of the impact of the requirements prior to the determination being issued;
- (b) at the time Telecom makes a request under paragraph 17.14(a) or as soon as reasonably practicable after Telecom consults with the Commission regarding the details of the delay that will be caused or the delay already caused by the New Cabinetisation Requirements and the milestone due date extension proposed by Telecom; and
- (c) at the time Telecom makes a request under paragraph 17.14(a) or as soon as reasonably practicable after Telecom provides the Commission with a

report from an independent expert (whose appointment was agreed to by the Commission) on whether or not, in his or her opinion:

- (i) Telecom has taken reasonable steps to mitigate the effects of the New Cabinetisation Requirements;
- (ii) Telecom's overall ability to meet an EUBA Coverage Milestone will be or has been materially delayed as a result of the New Cabinetisation Requirements; and
- (iii) the extension to the due date for the EUBA Coverage Milestone proposed by Telecom is appropriate in the circumstances.

17.16 Telecom will provide the Commission with any other information that the Commission reasonably requires to consider Telecom's request for an extension under clause 17.14.

17.17 If the Commission extends the date by which Telecom will be required to meet an EUBA Coverage Milestone, then Telecom will publish a revised PSTN migration plan that includes the new due date for the EUBA Coverage Milestone on its Internet website.

17.18 The date by which an Enforceable milestone in the PSTN migration plan has to be achieved cannot be extended by the Commission under paragraphs 17.10 or 17.14 (whether as the result of one or more Consent Problems or a combination of Consent Problems and New Cabinetisation Requirements) by more than 12 months from the original date set out in these Undertakings.

17.19 For the avoidance of doubt, nothing in paragraphs 17.10 to 17.16 above limit the operation of clause 95 in the main body of these Undertakings.

17.20 For the avoidance of doubt nothing in paragraphs 17.10 to 17.16 above allows Telecom to request any change to any milestone in the PSTN migration plan that is not an EUBA Coverage Milestone.

Resale Services

17.21 In relation to Resale Services that are Relevant Wholesale Services, the Wholesale Unit will:

- (a) provide a process for Service Providers to raise issues regarding the application of the Resale Equivalence standard to the services;
- (b) discuss any issues raised with the relevant Service Provider, to fully understand the nature of the issue and its impact;
- (c) where the issue identifies a failure to meet the Resale Equivalence standard, within 20 working days put in place a plan to remedy that failure

and provide details of that plan to the relevant Service Provider; and

(d) report all issues raised, and the resolution of the issues, to the IOG.

17.22 For the avoidance of doubt, nothing in paragraph 17.21 limits the obligations of the Wholesale Unit to supply Resale Services at the Resale Equivalence standard in accordance with clause 48 in the main body of these Undertakings.

SCHEDULE 1 – TRANSITION TO EQUIVALENCE

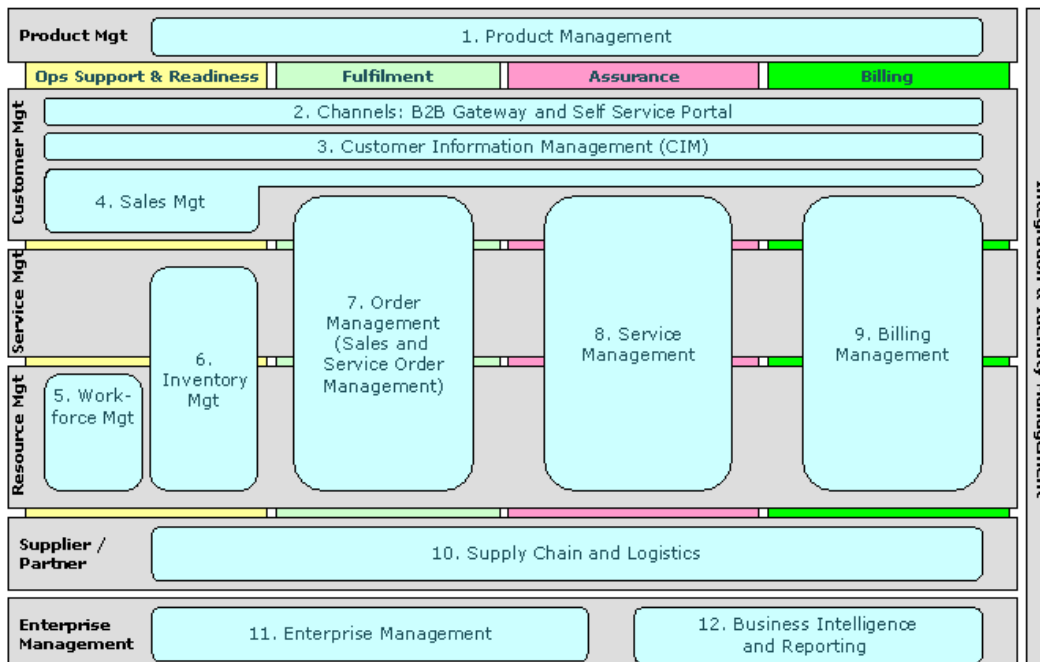
PART B: NON-BINDING EXPLANATION

18 INTRODUCTION

- 18.1 This part first provides an explanation of the 12 EOI “building blocks” that Telecom must complete to transition Relevant Services to the EOI standard. These building blocks refer to capabilities and functionalities that will be familiar to industry participants. The explanation in this part is intended to give a lay reader a high level understanding of the comprehensive changes Telecom will be making over the next four years, and how some of the key tracking and Enforceable milestones will be measured.
- 18.2 This is followed by sections that give a commercial context to some of the migration plans in Part A. Not all migration plans are discussed, as for some the timetable is self explanatory. However for others there is an important commercial context influencing the way the migration plan has been structured, and this is discussed below.
- 18.3 Finally, to address some queries raised during the consultation phase, additional explanation is given regarding the roll-out of the Ethernet platform and the plans for the eventual decommissioning of the legacy ATM network platform.
- 18.4 This Part B is not binding on Telecom.

19 EOI BUILDING BLOCKS

- 19.1 To explain the scale of the task over the next four years to achieve EOI for those Relevant Services that Telecom is required to provide to the EOI standard, and to give transparency to what drives the timetable in each migration plan, Telecom has identified (using industry definitions) 12 foundation capabilities (the “building blocks”). Telecom needs to complete and integrate these building blocks over the next four years to meet the separation and equivalence requirements in the Undertakings.
- 19.2 The 12 EOI “building blocks” are illustrated below:



19.3 To complete each of the 12 building blocks requires substantially new systems in one or more Telecom Business Units. This is because the systems need to execute some functions that were not required in the old 'vertically integrated' Telecom model, or the existing systems cannot be adapted to meet the new Undertakings requirements.

19.4 A summary of each of the 12 building blocks, why each building block is required, and what is required to complete and integrate them, is set out below.

Building Blocks that form part of the milestones in Part A

19.5 The milestones set out in Part A refer to eight of the building blocks. In addition, there are 4 other building blocks that Telecom must complete to meet the EOI standard by 2011.

Product Management

Overview

19.6 Under operational separation Telecom needs to be able to build services, and service components, that can be used by both Service Providers and Telecom Business Units, and that can be adapted to meet specific Service Provider and Telecom Business Unit requirements without having to rebuild the entire end-to-end product.

- 19.7 Also, product information relating to existing and future Relevant Services that the ANS Unit and Wholesale Unit supply must be shared with other Telecom Business Units and Service Providers on an equivalent basis. To this end:
- (a) product catalogues for the ANS Unit and the Wholesale Unit will be the definitive public domain sources for current information regarding the Relevant Services offered by those units for both other Telecom Business Units and Service Providers;
 - (b) future Relevant Service developments for the ANS Unit and the Wholesale Unit are captured in the two types of product roadmap: a preliminary version used for the basis of consultation (Product Plan of Intent) and a committed version upon which other Telecom Business Units and Service Providers can base their own product roadmaps (Product Plan of Record).

Interdependencies

- 19.8 The Product Management EOI building block must be completed for the ANS Unit and the Wholesale Unit in order for each Relevant Service that must meet the EOI standard to meet the December 2009 Requirements and the EOI standard.
- 19.9 The Product Management building block must be completed in order for Service Providers and Telecom Business Units to select Relevant Services and place orders from an online product catalogue. Therefore, interdependency exists between the Product Management, Channels and Order Management EOI building blocks.
- 19.10 If some of the systems that will underpin the Product Management EOI building block are not completed on time, it may be possible to put in place 'manual work-arounds' that allow the relevant Telecom Business Unit to still meet the December 2009 Requirements and the EOI standard.
- 19.11 The primary impact on Service Providers and Telecom Business Units of such a delay/scope reduction is likely to be lower functionality to search for service information, reduced ability to offer commercial service variants and reduced ability to build bespoke offers to meet Service Providers' and Telecom Business Units' needs.
- 19.12 Such a manual work-around would not result in a lower level of equivalence, although there would be some impact on the service experience for all customers.

Channels: B2B Gateway and Online Portal

Overview

- 19.13 The B2B Gateway and Online Portal will provide the ability for Service Providers, the Wholesale Unit (where applicable) and Retail Units to efficiently transact with the Telecom Business Unit that is supplying the Relevant Service using the same interface standards.

- 19.14 The capability for Service Providers to transact with the Wholesale Unit (for certain services) is currently provided through the Online Order and Tracking system (OO&T). However, this system will not scale to accommodate the significant volumes that the Retail Units are likely to process through the Wholesale Unit for Relevant Wholesale Services, and will therefore need to be replaced.

Interdependencies

- 19.15 The Channels EOI building block provides the interface with Service Providers and Telecom Business Units, so must be in place for capabilities such as ability to order, raise faults or view reports to be presented to Service Providers or Telecom Business Units.
- 19.16 As such, the Channels EOI building block must be completed for the ANS Unit and the Wholesale Unit in order for the Relevant Services that must be provided to the EOI standard to meet the December 2009 Requirements and the EOI standard.

Customer Information Management (CIM)

Overview

- 19.17 The ANS Unit, Wholesale Unit and Retail Units require ready access to key information regarding their customers. This includes organisational details for automated processes, and contact information for sales and account management activities.
- 19.18 Critically, each business unit must be able to manage its customers independently in accordance with the information sharing restrictions in the Undertakings.
- 19.19 To provide a robust solution for the information sharing restrictions and the EOI requirements of the Undertakings Telecom needs to:
- (a) design, build and implement a segmented Customer Information Management EOI building block database environment for the Retail Units, Wholesale Unit and ANS Unit;
 - (b) implement identity management in the Customer Information Management EOI building block and create an identity administration portal with role based security access;
 - (c) integrate the Customer Information Management EOI building block with the B2B Gateway, Online Portal and various other systems.

Interdependencies

- 19.20 The Customer Information Management EOI building block must be completed for the ANS Unit and the Wholesale Unit in order for the Relevant Services that

must be provided to the EOI standard to meet the December 2009 Requirements and the EOI standard.

Workforce Management

Overview

- 19.21 The ANS Unit, Wholesale Unit, Retail Units and Service Providers need to be able to enquire, monitor and be notified of completion of work in relation to a particular Relevant Service.
- 19.22 The ANS Unit will be responsible for a consolidated Workforce Management capability. Users of the workforce services will be able to view the workforce schedules and book service personnel via EOI interfaces (B2B Gateway and Self Service Portal).
- 19.23 A new capability platform and significant process redesign is required to deliver equivalent access to workforce services for both Telecom Business Units and Service Providers.

Interdependencies

- 19.24 The Workforce Management EOI building block must be completed for the ANS Unit and the Wholesale Unit in order for Relevant Services that must meet the EOI standard to meet that EOI standard.
- 19.25 Workforce Management is tightly linked to three other EOI building blocks: Service Management, Inventory Management and Order Management. Only when all of these building blocks have been completed and integrated can the EOI standard be reached.
- 19.26 The integration activity across these 4 building blocks will provide an increased level of automation and efficiency and deal with any residual non-equivalence issues across the back office functions in relation to Relevant Services that must meet the EOI standard.

Inventory Management

Overview

- 19.27 Telecom inventory is currently managed using more than 20 different systems – a situation that has evolved over the last 15 years as Telecom has responded incrementally to new business needs.
- 19.28 In contrast, to meet the operational separation commitments, Telecom will need to hold the inventory data on a set of consolidated platforms with secured access by user group.
- 19.29 Telecom needs to transition existing platforms and design, build and implement new Inventory Management capabilities, and integrate these platforms with the Service Management, Order Management and Workforce Management EOI building blocks.

19.30 Once the new Inventory Management EOI building block is complete, the existing data, which is held on the various systems in a variety of formats, must be copied over to the new platform. Completing this building block, integrating this with other building blocks and copying over the existing data while offering continuous service to Telecom Business Units, Service Providers and end-customers is a significant task, and one of the major dependencies for achievement of the EOI standard by 31 December 2011.

Interdependencies

- 19.31 The Order Management processes rely on an accurate network inventory.
- 19.32 The Service Management processes require accurate inventory to be able to diagnose faults and relate network events to individual services and the customers affected.
- 19.33 The Workforce Management processes rely on accurate inventory information to dispatch appropriately skilled and equipped staff to correctly fulfil orders or resolve faults.
- 19.34 The Supply Chain and Logistics processes need to assign existing, and order additional, inventory in order to manage the service experienced by customers, meet market demand and the cost effective build out of the network.
- 19.35 As such, the Inventory Management EOI building block must be completed, and integration completed with other building blocks (as outlined above) for the ANS Unit and the Wholesale Unit to meet the EOI standard.

Order Management (Sales and Service Order Management)

Overview

- 19.36 Separation into the ANS Unit, Wholesale Unit and Retail Units requires disconnection of the activities involved in Order Management into two different components:
- (a) the Sales Order Management component that relates to the 'front office' functions including (but not limited to) capturing customer data and configuring the offer/proposal/quote to the Telecom Business Unit or Service Provider, and end-customer in question;
 - (b) the Service Order Management component that relates to the 'back office' functions including (but not limited to) order decomposition, pre-qualification and hand-off to relevant provisioning systems, jeopardy management and exception handling.
- 19.37 Sales Order Management will differ significantly between the different Telecom Business Units, as it must reflect the different customer types and relationships. Current systems cannot be adopted to meet these different requirements.

19.38 Similarly, the current Service Order Management capability is also completed by systems that cannot be separated to enable equivalent and secure access by Service Providers.

19.39 As a result, Telecom needs to design, build and implement new Sales and Service Order Management capabilities. This requires migration of customer, product and databases from legacy systems to the new systems, and extensive integration of new systems.

Interdependencies – Sales Order Management

19.40 The Order Management (Sales Order Management Component Only) EOI building block must be completed for the ANS Unit and the Wholesale Unit in order for Relevant Services that must meet the EOI standard to meet the December 2009 Requirements and the EOI standard.

19.41 Further, the Sales Order Management component must be completed for the Order Management Service Order Management component functionality to be fully enabled (which has further downstream dependencies, as outlined below).

Interdependencies – Service Order Management

19.42 The Order Management (Service Order Management Component Only) EOI building block must be completed for the ANS Unit and the Wholesale Unit in order for the Relevant Services that must meet the EOI standard to meet the EOI standard.

19.43 This component is closely linked to the Billing, Workforce Management, Supply Chain & Logistics and Inventory Management EOI building blocks. As such, none of these other building blocks will be able to carry out their full intended functions unless the Service Order Management component has been completed.

Service Management

Overview

19.44 Telecom's commitment to an outstanding customer experience and compliance with the Commission's regulated service level terms means a significant investment in its Service Management capability. This will involve linking Telecom's service and support systems with those of Service Providers, the ANS Unit, the Wholesale Unit and Retail Units for the day-to-day management of customer experience and service obligations.

19.45 The purpose of the Service Management EOI building block is to ensure that agreed service levels are met for all Relevant Services provided and, where faults occur, that Service Providers and Telecom Business Units have equal visibility of information and can deal with faults in the same manner.

19.46 This building block provides an "end to end" view of a Relevant Service, and includes all functions, processes, resources and information necessary for the management and operation of that service, and is considered as 3 components:

- (a) Service Desk is the front office component of Service Management. This will be completed separately for each of the ANS Unit, the Wholesale Unit and the Retail Units. This allows each units' respective customers to raise, track and escalate trouble tickets (in response to faults);
- (b) Fault Resolution is a back-office components of Service Management, and provides the processes for prioritisation and scheduling of fault resolution activities;
- (c) SLA & Performance Management is also a back office component of Service Management. This provides the proactive management of network capacity and ensures that service availability and performance are aligned to defined SLAs.

Interdependencies – Service Desk

- 19.47 The Service Management (Service Desk Component Only) EOI building block must be completed for the ANS Unit and the Wholesale Unit in order for the Relevant Services that must be provided to the EOI standard to meet the December 2009 Requirements and the EOI standard.

Interdependencies – SLA & Performance Management and Fault Resolution

- 19.48 As both SLA & Performance Management and Fault Resolution components interface with similar back-end systems, the interdependencies are described together.
- 19.49 Both the SLA & Performance Management and Fault Resolution components must be for completed for the ANS Unit and the Wholesale Unit to meet the EOI standard.
- 19.50 The systems defined by these components will need to be integrated with the necessary supporting EOI building block capabilities such as Inventory Management, Supply Chain and Logistics, Workforce Management, Order Management and Customer Information Management.

Billing Management

Overview

- 19.51 Telecom needs the ability to calculate and present for payment a range of usage-based, one-off and re-occurring billing functions to its customers.
- 19.52 To implement the operational separation requirements, the billing functions need to be extended to support billing capabilities for the Retail Units, the Wholesale Unit and the ANS Unit that enable reconciliation of orders and invoices for those different business units.

Interdependencies

- 19.53 New or revised billing capabilities are planned for all Telecom Business Units. Replacing billing platforms requires integration with a number of other EOI

building block capabilities such as Inventory Management, Order Management, and Channels, along with the migration of existing customer databases on to new platforms.

- 19.54 The Billing Management EOI building block must be completed for the ANS Unit and the Wholesale Unit in order for the Relevant Services that must be provided on an EOI basis to meet the EOI standard.

Additional Building Blocks

- 19.55 In addition to the building blocks that form part of the milestones in Part A, Telecom must complete the following 4 other building blocks in order to be able to meet the EOI standard.

Sales Management

Overview

- 19.56 In the context of meeting the EOI standard, Sales Management is required to enable the separate Telecom Business Units to maintain individual relationships with customers, including providing information about products, systems and operational changes, account management activities around processing orders, invoices and reconciliation, service escalation and rebates and payments.
- 19.57 The nature of the sales interactions differ between the ANS Unit, Wholesale Unit and Retail Units, and as such require different technologies to meet the individual business unit requirements.

Interdependencies

- 19.58 The Sales Management EOI Building block is tightly linked with the Customer Information Management EOI Building block. The Sales Management EOI Building Block will be vital in ensuring the currency and completeness of data contained within the Customer Information Management systems. Although the Sales Management EOI Building Block is not a pre-requisite for meeting the December 2009 Requirements, it is Telecom's intent that this be delivered in advance of this date to for operational efficiency and customer experience reasons.

Supply Chain and Logistics

Overview

- 19.59 The ANS Unit, Wholesale Unit and Retail Units need to be able to manage the supply of physical stock items (e.g. home gateways, mobile phones, accessories, CPE, network components).
- 19.60 Although these Supply Chain functions are not directly related to Relevant Services, they do support EOI and separation by enabling Telecom Business Units to adhere to internal trading arrangements around stock and logistics.

Interdependencies

19.61 As outlined earlier, the Supply Chain and Logistics EOI building block is tightly linked with a number of other building blocks that fulfil back office functions, most notably Inventory Management.

19.62 This building block must be integrated with the Inventory Management, Service Management and Workforce Management EOI building blocks to meet the EOI standard.

Enterprise Management

Overview

19.63 Enterprise Management capability supports both transaction and asset management, which Telecom needs to implement to meet the requirements of the Undertakings. This requires enhancement of Telecom's core financial system and the supporting financial and organisational systems.

Interdependencies

19.64 The Enterprise Management EOI Building Block predominantly stands alone, although it will draw inputs from the Customer Information Management, Billing Management EOI Building Blocks.

Business Intelligence and Reporting

Overview

19.65 Separation, and enabling Telecom Business Units to act at arm's-length in respect of Relevant Services in accordance with the Undertakings, requires enhancement of Business Intelligence and Reporting systems.

19.66 Operational separation increases the reporting obligations on Telecom. The ANS Unit, the Wholesale Unit and the Retail Units need to report separately in certain instances and more extensively than current systems allow. As a result, Telecom needs to implement a new business intelligence capability.

Interdependencies

19.67 The Business Intelligence and Reporting EOI building block will require a number of inputs from other building blocks to perform its intended functions: predominantly (but not limited to) Service Management, Billing Management, Customer Information Management EOI building blocks.

20 BUBA AND EUBA MIGRATION PLAN

20.1 BUBA and EUBA are wholesale services that allow Service Providers and the Retail Units to build and sell retail broadband products. BUBA and EUBA services are supplied by the Wholesale Unit.

20.2 The BUBA without POTS and EUBA without POTS services will allow Service Providers and Retail Units to offer a broadband service to an end-customer without an analogue telephony service on the same access line.

- 20.3 In addition, the Wholesale Unit will offer BUBA with POTS and EUBA with POTS services, which allow Service Providers and the Retail Units to offer broadband services as a bundle with an analogue telephony service, delivered over the same access line.
- 20.4 The BUBA and the EUBA services differ in that the EUBA services allow the Service Provider or the Retail Units to also offer services based on a defined "realtime" class of service performance.
- 20.5 BUBA services are delivered over two separate infrastructures: ATM and Ethernet. BUBA (Over Ethernet) is currently being rolled out over new Ethernet based DSLAMs (ISAMs), whereas BUBA (Over ATM) is based on older ATM based DSLAMs (ASAMs). BUBA (Over ATM) will be replaced over time as this equipment reaches end of life. Importantly, however, both BUBA (Over Ethernet) and BUBA (Over ATM) will meet the same equivalence standards at the two key equivalence milestones (2009 and 2011).
- 20.6 From 31 December 2009, the Retail Units will consume BUBA and/or EUBA in the delivery of Retail Broadband Services provided to new customers (except where extenuating circumstances apply). To do this the Retail Units need to develop:
- (a) the network technology associated with a retail ISP (such as authentication and traffic management), with appropriate interfaces to the Wholesale Unit BUBA or EUBA input service;
 - (b) the sales order and service management capabilities to order, provision and pass faults across to the Wholesale Unit via the B2B Gateway provided as part of the December 2009 Requirements; and
 - (c) the billing and payment management capability to make payments to the Wholesale Unit for BUBA and EUBA inputs and bill end-customers.
- 20.7 This is a significant re-engineering of the business of the Retail Units.
- 20.8 The migration of the Retail Units' existing broadband customer base to a new service based on the BUBA and/or EUBA inputs is a separate, and complex task. The migration will be done in two phases, to meet two milestones.
- 20.9 The first milestone is 90% of the Retail Broadband Services customers (existing as at 31 December 2009) migrated by 31 December 2010. For this part of the customer base, it is possible to migrate the service taken by the customer to BUBA and/or EUBA without needing to contact or involve the customer. This is not without complications, however. The circumstances of customers will differ, and Telecom will need to map each customer scenario and settle the way in which migration will be done.

- 20.10 Clearly, the most important objective is to minimise the impact on customers. For this reason, this phase of the migration will be completed in a series of stages. For each customer scenario the migration will be piloted with selected Telecom staff and issues resolved. The pilot will then be extended to selected customers, and again any unforeseen issues will be resolved. Migration is then implemented in a series of small batches of customers until all the customers for that migration scenario have been migrated to a service using the BUBA or EUBA input. This will be repeated for each customer scenario over the course of 2010 until 90% of the Retail Units' broadband customers have been migrated.
- 20.11 The second milestone is migration of the remaining 10% of the Retail Units' Retail Broadband Services customers by 31 December 2011. For these remaining customers (approximately 70,000 in number) Telecom has yet to determine a migration approach that does not impact on customers. Each migration may require a technician to contact the customer and reconfigure the existing modem (either over the phone or at the home) or exchange the existing modem for a new modem. This second migration will affect some customers, and Telecom needs to take all practical mitigation steps to minimise any disruption this may cause. Clearly this will be a time and resource intensive exercise.

21 HSNS, UNS (OVER ETHERNET) AND UPC

- 21.1 HSNS, UNS and UPC are intermediate input services that allow Service Providers and the Retail Units to build and offer business-grade data services. While not required to do so by the terms of the Minister's determination, Telecom will provide HSNS, UNS (Over Ethernet) and UPC services to the EOI standard in accordance with the migration plan in Part A of this Schedule.
- 21.2 These services constitute a comprehensive suite of business grade intermediate data tails over both fibre and copper. Using these services, Service Providers and the Retail Units can build their own Wide Area Network (WAN) and Point-to-Point data services. Future Retail Unit WAN and Point-to-Point data services will consume these inputs.

HSNS

- 21.3 HSNS is a commercial fibre access based intermediate input service provided by the Wholesale Unit to Service Providers and the Retail Units.

UNS and UPC

- 21.4 UNS and UPC are both commercial copper access based intermediate input services provided by the Wholesale Unit to Service Providers and the Retail Units.
- 21.5 UNS and UPC differ in respect to access technology. UNS is a DSL service, whereas UPC is based on Frame Relay.

UNS

- 21.6 UNS will be offered in two variants. Telecom currently provides UNS based on ATM based infrastructure (referred to as UNS (Over ATM)). A replacement UNS service is being rolled out over new Ethernet based infrastructure and is referred to as UNS (Over Ethernet).
- 21.7 UNS (Over ATM) is a legacy service that will not meet the EOI standard. Instead, from 31 December 2009 it will no longer be offered to new customers and will be withdrawn from service by 31 December 2011. As Telecom rolls out UNS (Over Ethernet), customers will be migrated from UNS (Over ATM) to UNS (Over Ethernet). UNS (Over Ethernet) will be supplied in accordance with the December 2009 Requirements by 31 December 2009, and to the EOI standard by 31 December 2011.
- 21.8 Telecom considers UNS (Over Ethernet) to be a superior offer for Service Providers to UNS (Over ATM) as it generally offers higher bandwidth and allows Service Providers to use the same network interface for both HSNS and UNS, so has lower operating cost for Service Providers. For these reasons, Telecom has made a commercial decision to withdraw UNS (over ATM) and anticipates the migration from UNS (ATM) to UNS (Ethernet) (and therefore to an EOI service) will be driven by customer demand, and be complete by 31 December 2011.

UPC

- 21.9 UPC will continue to fulfil a particular geographic niche beyond 2011, offering the input service needed for copper based business data services outside of the UNS (Over Ethernet) footprint. Although volumes will remain low (there are currently under 2000 tails), this requirement will persist because some business end-customers (particularly those in rural areas) receive managed data services over long copper local loops. Frame Relay is better suited to carrying data over long copper loops, and this service should not be withdrawn before a suitable (and cost effective) alternative is rolled out.
- 21.10 As volumes and most importantly, the moves, adds and changes (MACs), for UPC are low, Telecom is able to develop processes that allow it to ultimately meet the EOI standard. It is this combination of long on-going life, low volumes and viability of a manual process that allows Telecom to make an exception in providing this legacy service at the EOI standard.

22 ROLL OUT OF ETHERNET PLATFORM

- 22.1 This section provides additional explanation regarding Telecom's intention to extend the footprint of its Ethernet based infrastructure and migrate services off the ATM based infrastructure.
- 22.2 ATM is the basis of Telecom's legacy data transport network and is the basis of Telecom's earlier DSL technologies. Telecom currently offers a range of ATM-based services across this network, although these services will be replaced by

Ethernet-based services over time as the NGN is rolled-out and customers migrated. Similarly, new DSL equipment which is Ethernet-based is being deployed to support new services and higher bandwidths.

- 22.3 Generally speaking, the business cases for Service Providers to migrate from ATM to Ethernet-based services are compelling, as the Ethernet-based products often offer higher performance and the Ethernet-based equipment is both far cheaper than the corresponding ATM equipment and can be used for multiple Ethernet-based services (e.g. the same Ethernet handover links can be used by Service Providers for EUBA, UNS (Over Ethernet) and HSNS).
- 22.4 The migration business case is perhaps even more compelling for Telecom, as the Ethernet footprint will extend to cover over 80% of the New Zealand population by the end of 2011. Continued expansion of the UNS (Over Ethernet) footprint will ultimately allow Telecom to drive cost and complexity out of its business by decommissioning the ATM core. As the ATM core network is decommissioned, all ATM-based services will be withdrawn.
- 22.5 It is in Telecom's interests for customers to migrate to NGN services such that it can close down (and therefore remove the cost and complexity of managing) legacy data platforms (e.g. the ATM and DSTN platform).
- 22.6 However, there are some customer requirements that cannot be met by NGN services, due to either footprint or functionality. This situation clearly needs to be resolved before legacy data platforms can be closed.
- 22.7 UPC, which is an ATM-based service, is currently used to serve customers in outlying areas. The access technology for UPC is often Frame Relay over copper lines, served by equipment located in Telecom exchange buildings. Although DSLAMs may be present in the same exchanges, it may be the case that customers' needs are best met through UPC as (in simplistic terms) Frame Relay is a better underlying technology than DSL for offering data services over long copper loops.
- 22.8 In order to decommission the ATM network, these UPC tails will ultimately need to be replaced. There are potential technology options to this problem today (e.g. cabinetisation to shorten the long loops). However, at the time when the business case for the decommissioning of the ATM is considered there may be others that offer better customer outcomes and/or are more economic. As such, no specific undertaking is made at this time as to the approach that will be taken.
- 22.9 In cases where existing customer needs cannot be met by NGN services (e.g. because the legacy services are intimately integrated with customers' business critical systems) then Telecom will consult customers to set decommissioning plans that give customers the time and support to remove dependency on such products.

23 PSTN

- 23.1 Telecom's PSTN epitomises the issue raised by legacy services in the move to operational separation and the EOI standard. To convert the PSTN Services so that they consume EOI inputs would take up a large proportion of Telecom's skilled technical staff and resources. The effect would be to delay the migration plans for UCLL, BUBA, EUBA and Resale Services as well as the deployment of other next generation services and infrastructure – to look backward rather than look forward.
- 23.2 As an alternative to rebuilding PSTN services Telecom is making comprehensive forward looking commitments at both the wholesale and retail level.
- 23.3 At the wholesale level, Telecom is committing to making available a voice capable broadband input service to be provided by the Wholesale Unit on an EOI basis on 80% of Existing PSTN Lines by the end of 2011. Where this Wholesale Unit EOI voice capable broadband input is available, Telecom Retail and all other service providers will be able to use this to provide new retail voice services.
- 23.4 While the actual performance of broadband services is determined by a number of factors – including for example factors beyond Telecom's control such as the quality of a customer's house wiring or modem - this roll-out of the Wholesale Unit EUBA or equivalent service will also significantly enhance the performance of the broadband access network within the 80% EUBA coverage area. This area includes not only the major centres, but the urban areas of towns right across New Zealand, including the townships of places such as Methven, Reefton and Waikouaiti in the South, and Edgecumbe, Ngatea and Foxton Beach in the North.
- 23.5 At the retail level by the end of 2009, Telecom will have developed, tested and launched a Retail Unit primary line voice service that consumes EOI inputs (either EUBA without POTS or an equivalent input). Telecom then commits to a series of aggressive customer migration targets.
- 23.6 A central challenge for Telecom is that complete migration off the PSTN requires changes by other Service Providers as well as changes by Telecom. For this reason the first two customer migration targets relate to Telecom's retail customer base in 2010 and 2012
- 23.7 An important step is Telecom providing a further binding migration plan in 2011 for the period 1 January 2013 to 31 December 2015. This will not only address the services sold by Retail Units, but also the steps Telecom is taking to facilitate Service Providers purchasing Resale Services to migrate those services off the PSTN Services.
- 23.8 In planning for this customer migration, Telecom has two realistic PSTN customer migration options, presenting a trade-off between short term up-take and long term flexibility and service delivery.

- 23.9 The preferred option, and the option Telecom is committed to, is voice over broadband. The central feature of this option is the delivery of voice services over a broadband access connection, along with other IP-based services. A broadband gateway device is installed in the home to connect the analogue telephone.
- 23.10 This approach has a number of major attractions. The single broadband connection supports a much wider range of services than just voice and broadband Internet, potentially including TV, video-on-demand, remote working, home monitoring and security applications. Changes to services are implemented mainly by installing new software in the network and the customer buying any necessary digital equipment.
- 23.11 The principal challenges are the need for physical change at the customer's premises, and the underlying network technology is complex and not yet mature.
- 23.12 Overall, then, the Voice over Broadband approach:
- (a) will have a lower take up initially, as fewer customers will value the new services sufficiently to make the changes in the home, but this will increase as further services become available and the complexity decreases;
 - (b) is not an appropriate model for forcing a migration of customers, as changes need to happen at the customer's premises;
 - (c) is the preferred model for the longer term, for both customers and Telecom. It increases the range of services that can be delivered, simplifies service delivery, and increases customer flexibility.
- 23.13 The alternative option is PSTN Emulation. The central feature of this option is use of VOIP to emulate a PSTN connection. No change is required in the customer's premises, but the analogue connection supported today by the PSTN is converted to VOIP within the network.
- 23.14 The clear advantage of this approach is that the physical connection at the customer premises does not change.
- 23.15 There are a number of disadvantages, however. This approach significantly complicates service delivery long term, for both broadband and voice services. The range of voice services currently available to customers (e.g. Smartphone Services) differ or services operate differently (e.g. short dial codes for the configuring the service may differ). Importantly, this configuration would require a new EOI ready Wholesale Unit input product, and the technology to build such a product is not currently available.

23.16 This approach also requires two physical ports per customer at the DSLAM (where the analogue connection terminates). This potentially increases capital and operating costs in managing multiple service delivery models.

23.17 Telecom's PSTN customer migration plan is based on the Voice over Broadband Option as the preferred approach based on customer opt-in, but acknowledges this will not be sufficient to achieve desired rates of customer migration and it will be necessary to also deploy PSTN Emulation and forcibly migrate customers to this. Other options will also be considered, but any option will ultimately be based on an EOI input service.

24 **ISDN**

24.1 ISDN is a legacy service that supports two business end-services. In the vast majority of cases, ISDN is used to provide connectivity between PBX (Public Branch Exchange) equipment that sits on a customer's premises and the Telecom PSTN network. In addition, ISDN is used to provide connectivity for video conferencing solutions.

24.2 Telecom has limited spare ISDN capacity and has been focused for some time on addressing this situation by developing an IP trunking product (IP Enterprise Connect, or IPEC) which will consume wholesale inputs (such as HSNS, UNS or UPC).

24.3 The technical capability and feasibility pilot of IPEC is planned for December 2008, and a series of commitments around the availability of this service and the consumption of equivalence based inputs in the provision of the service are set out in the migration plan in Part A of this Schedule.

24.4 While it is in Telecom's interests to migrate customers to IPEC as it becomes available, Telecom does not plan to force ISDN Services customers to migrate off these services. Rather, the pace of the migration will be dictated by customers.

24.5 The key reason why Telecom is not forcing migration on customers is that many business customers have significant investment in PBX equipment that is completely dependent on the current ISDN standard and functionality.

24.6 While many of the new PBXs launched to the market in the last two or three years can be upgraded to run an IP trunk interface, the majority of PBX users today (Telecom estimates up to 70% of the market) have equipment that cannot be upgraded.

24.7 Further, while most of the newer PBXs can theoretically be upgraded to run an IP trunk interface, experience from overseas is that there are significant challenges in preserving all of the end-customer features when migrating to an IP trunk. This has been most in evidence when different types of equipment from multiple vendors are involved (as different protocols or interpretations of standards have

been variously employed). As such, some customers with even the new PBXs will be reluctant to migrate.

- 24.8 Similarly, newer video conferencing equipment is IP-based, and does not require ISDN connectivity, so this already niche demand will further diminish over time. However, a forced migration off ISDN would render existing (and costly) video conferencing equipment immediately obsolete.
- 24.9 Given PBXs have an average product life of seven years, and video conferencing equipment may have similar or longer product life, Telecom anticipates that it will take up to 13 years to fully migrate the customer base.

25 **ONE OFFICE**

- 25.1 Unlike the Retail Broadband Services it is not feasible to re-engineer One Office to consume Wholesale Unit EOI inputs.
- 25.2 One Office Services are complex services designed for customers with multiple sites. Each customer site includes a Telecom-owned router that is pre-configured to the existing versions of One Office Services (well over 10,000 sites in total).
- 25.3 In order to re-engineer One Office Services to consume HSNS, UNS and UPC, it would be necessary to cease the service to every single site and replace or reconfigure the routers manually (at the customer premises) before re-providing the re-engineered One Office Services. This would be very resource intensive and materially disrupt the operations of many of New Zealand's largest public and private sector organisations.
- 25.4 Instead Telecom is committing to stopping innovation of the One Office Services to new customers by 31 December 2008 and stopping sales to new customers of this family of services by 31 December 2009.
- 25.5 By the same date (31 December 2009), Telecom is also committing to launching a new managed network layer (or "Layer 3") data service that will be available to new and existing customers. This service (the "New Data Service") will consume wholesale HSNS, UNS (Over Ethernet) and UPC equivalence based inputs from its inception. Where possible, the New Data Service will be built using HSNS or UNS (Over Ethernet) inputs. In areas where HSNS and UNS (Over Ethernet) are not available, the New Data Service will be built using UPC. Over time and as technology develops, other wholesale inputs provided on an equivalent basis may be used.
- 25.6 To demonstrate commitment to developing the New Data Service in such a way that it is fit-for-purpose and competitive, Telecom is committed to having provided at least 500 data tails by 31 December 2010.

- 25.7 Telecom is not proposing to force a migration of customers from the One Office Services. Doing so would risk significant disruption to large proportions of the public and private sector.
- 25.8 Some of New Zealand's largest businesses and users of telecommunications services are critically dependent on the One Office Services. For example, the banking and government sectors are heavily reliant on One Office Services. Migration poses significant risks for these customers – any failure would go straight to the integrity of their internal systems, and their ability to operate.
- 25.9 For this reason migration will require a significant commitment of time and resources from both the customer and Telecom. Migration for the customer is not as simple as requesting a new service – because the One Office Services is business critical for the customer, the customer must be involved in the development and implementation of the new solution. As the New Data Service will give the customer additional functionality, terms and service level agreements will also need to be reviewed for each customer.
- 25.10 The Wholesale Unit is committed to providing a comprehensive suite of intermediate services that allow Service Providers and the Retail Units to build superior services to the existing One Office suite. In these competitive markets, customers will have the choice of migrating their services when it makes strategic sense for them to do so, and they will have the choice of a number of credible suppliers.
- 25.11 As a result of Telecom's undertakings regarding UNS, HSNS and UPC, One Office Services customers will be able to choose to migrate to enhanced new services and migrate away from One Office Services in a way that both takes advantage of the new technology, and manages the risks to their business systems.

26 **UCLL CO-LOCATION**

- 26.1 UCLL Co-Location is a generic service that enables Service Providers and other Telecom Business Units to rent space in exchanges and install the necessary equipment to use the UCLL service.
- 26.2 Telecom has given an assurance to the Telecommunication Carriers Forum that any new Wholesale Unit DSLAMS installed after the date of the UCLL Co-location STD will be installed in the same rooms in the exchange and under the same terms as for all other Service Providers, and thus be in compliance with the UCLL Co-location STD. The primary steps involved in achieving EOI for UCLL Co-location are:
- (a) changing the processes for the ordering of footprint space, billing, and information provision from the ANS Unit so that other Telecom Business Units and Service Providers are using the same systems and processes for the installation of equipment in the future;

- (b) completing audits of the exchange footprint space that is occupied by the Telecom equipment of other Telecom Business Units that accesses the UCLL or UCLL Backhaul services;
 - (c) the ANS Unit charging other Telecom Business Units for all relevant installed equipment on the same basis as other Service Providers (including charges for power, air conditioning, and other components of this service set out in the Commission's Standard Terms Determination).
- 26.3 By 30 June 2008, other Telecom Business Units will pay the ANS Unit for UCLL Co-location at all exchanges on the basis of an estimated exchange footprint. Any financial imbalance arising from differences between the estimated and measured footprint will be addressed retrospectively, when an exchange is audited in accordance with the process outlined below.
- 26.4 By 31 December 2008, the EOI standard will apply to all new equipment (that accesses the UCLL or UCLL Backhaul services) that other Telecom Business Units install at a Telecom local exchange after the Approval Date.
- 26.5 In relation to Wholesale Unit and Retail Unit equipment existing at the Approval Date an audit will be progressed on the basis that when a Service Provider is provided with UCLL Co-location service from a particular exchange an audit of the Wholesale Unit and the Retail Units' access equipment will be done at the same time. The Wholesale Unit and the Retail Units will therefore start consuming the UCLL Co-location service to the EOI standard using a measured footprint from that particular exchange at the same time as the first Service Provider.

27 **RESALE**

- 27.1 Resale is a form of access where a Service Provider takes a wholesale version of a Telecom retail service, and sells it under the Service Provider's own brand. The Service Provider is not buying a network input from Telecom, but a complete retail service to resell.
- 27.2 These Undertakings set a specific standard for Telecom to meet for resale services, being the Resale Equivalence standard. Telecom has consulted with the industry and identified the core systems and process improvements that need to be made in order to meet the Resale Equivalence standard.
- 27.3 Telecom has committed to make these core improvements in Part A. Some of these changes will be made by 31 December 2008, and the remainder will be made before 31 December 2009.
- 27.4 In paragraph 17.15 Telecom has also committed to a process to address any Resale Equivalence issues that arise in the future.

SCHEDULE 2 - SHARED SERVICES, PART A PERSONS, PART B PERSONS, AND PART C PERSONS

The contents of this Schedule may be revised from time to time in accordance with clause 92.

Part 1 Shared Services

Shared Services means the following teams or functional groups within Telecom, comprising some or all of the teams that supply operational and support services to more than one part of Telecom, without influencing the Commercial Policy of the ANS Unit or the Wholesale Unit:

Shared Capability means the team consisting of skilled technology practitioners who support business as usual and change programmes utilising in-house staff, occasional direct contractors, and talent from Telecom's partners and suppliers. In respect of a particular programme of work, Shared Capability is responsible for documenting detailed requirements of the programme, designing, developing and building technology solutions that deliver the programme requirements, project management and administration, testing and quality auditing, and management of resources.

Shared Services and Finance means the team responsible for:

- (a) supply chain – including managing the commercial relationships with Telecom's infrastructure and corporate vendors, and management of network spares;
- (b) billing services – including monthly billing of customers, monthly bill payment collection and processing, managing billing disputes, managing systems parameter tables, current and future billing capability;
- (c) revenue – including ensuring the accuracy and integrity of revenue and related volumes reported in Telecom's financial systems, development of revenue assurance strategy and frameworks, ensuring billing integrity, reconciliation processes, and assisting with regulatory and statutory requirements;
- (d) provisioning – including co-ordination of the activation of managed and unmanaged voice and data services to Service Providers and End-Users, including feasibility assessment for new connections, customer network audits and managed cut-overs for all product types;
- (e) property – including managing all corporate property for Telecom nationally including leases on buildings, power, capital funding to establish

new sites, staff facilities, furniture and physical security, installation of power and data cabling to work stations;

- (f) information resources – including managing Telecom’s information management policy framework and all related standards and guidelines, managing enterprise information architecture for unstructured information, intranet management, and library services;
- (g) credit and risk – including managing the collection process for Telecom, and minimising Telecom’s exposure to loss through fraud, bankruptcies, receivership and liquidations;
- (h) shared Financial and Support Services - including supporting provisioning of month-end accounting and financial support services around planning analysis, performance reporting, purchasing, payments, payroll and Employee expenses;

Technology Operations means the team responsible for IS operations, field services, service delivery, technology services, sales and operations planning, operations strategy, network operations, portfolio management, operational risk services, and service co-ordination. This includes providing governance and leadership for Telecom’s technology design and operational processes, service design and readiness, service resource management, operation and management of IT assets across Telecom, management of the national operations centre, maintenance, restoration and build of Telecom’s network;

Programme Delivery means the team that co-ordinates delivery of work programmes, including managing programme delivery and associated processes.

Part 2
Part A Persons, Part B Persons, and Part C Persons

	PART A	PART B	PART C
Person or functional group (including successors)	Can Participate in Policy of ANS Unit or Wholesale Unit so long as it is in accordance with clause 89	Can receive Commercial Information of ANS Unit or Wholesale Unit so long as it is in accordance with clause 90	Can receive Customer Confidential Information of ANS Unit or Wholesale Unit so long as it is in accordance with clause 91
Board	Yes	Yes	Yes
CEO	Yes	Yes	Yes
Executive	Yes	Yes	Yes
Group Finance	Yes	Yes	Yes
Group Legal Services (subject to clause 63)	Yes	Yes	Yes
Group Regulatory (subject to clause 63)	Yes	Yes	Yes
Group Technology	Yes	Yes	

	PART A	PART B	PART C
Person or functional group (including successors)	Can Participate in Policy of ANS Unit or Wholesale Unit so long as it is in accordance with clause 89	Can receive Commercial Information of ANS Unit or Wholesale Unit so long as it is in accordance with clause 90	Can receive Customer Confidential Information of ANS Unit or Wholesale Unit so long as it is in accordance with clause 91
Group Strategy and Development	Yes	Yes	
Group Company Secretary Office		Yes	Yes
Group Company Secretary		Yes	Yes
Group Public Affairs		Yes	Yes
Group Audit and Risk		Yes	Yes
Crisis Management Team		Yes	Yes
Shared Services		Yes	Yes
External Auditors		Yes	Yes
Human Resources		Yes	

	PART A	PART B	PART C
Person or functional group (including successors)	Can Participate in Policy of ANS Unit or Wholesale Unit so long as it is in accordance with clause 89	Can receive Commercial Information of ANS Unit or Wholesale Unit so long as it is in accordance with clause 90	Can receive Customer Confidential Information of ANS Unit or Wholesale Unit so long as it is in accordance with clause 91
UIP Office		Yes	
IOG and Support Office		Yes	Yes

SCHEDULE 3 - TIER SITES

The Tier 1, Tier 2, and Tier 3 sites referred to in these Undertakings are those Telecom sites that are identified as Tier 1, Tier 2, or Tier 3 in the following tables, using Telecom's classification nomenclature. Tier 0 sites are not relevant, and are not included in these tables.

The contents of this schedule may be updated to reflect changes in Telecom's network from time to time, provided that any such changes are consistent with Telecom's then current network architecture classification rules and those changes are agreed by Telecom and the Commission in writing.

Table 1

Tier 1 and Tier 2 sites

Region	Tier 1	Tier 2	
Auckland Region		KC	Kerikeri
		WR	Whangarei
	MDR		Mayoral Drive
		TBY	Torbay
	GLF		Glenfield
		HSN	Henderson
		MAB	Mt Albert
		RUE	Remuera
		HCK	Howick
		POP	Papatoetoe
Wellington Region	PAK		Papakura
	HN		Hamilton
	TG		Tauranga
		RO	Rotorua
		NU	New Plymouth
		NA	Napier
		PM	Palmerston North
	LVN		Levin
	WN		Wellington
		PRO	Porirua
South Region		NAE	Naenae
		NN	Nelson
		GM	Greymouth
	CH		Christchurch
	RIC		Riccarton
		TU	Timaru
		DN	Dunedin
		IN	Invercargill
		CMW	Cromwell

Table 2

Tier 3 Sites

Tier 3

Alexandra (AL)
Amberley (AY)
Ashburton (AR)
Balclutha (BL)
Blenheim (BM)
Cheviot (CT)
Coromandel (CL)
Culverden (CVD)
Dannevirke (DV)
Darfield (DRF)
Dargaville (DRL)
Fairlie (FK)
Featherston (FN)
Franz Josef Glacier (FJG)
Gisborne (GS)
Gore (GG)
Halfmoon Bay (HMB)
Hastings (HBN)
Hawera (HW)
Helensville (HL)
Hokitika (HK)
Kaikoura (KK)
Kaitaia (KTA)
Kurow (KOW)
Little River (LRV)
Lumsden (LMS)
Masterton (MS)
Matamata (MAM)
Mount Maunganui (MMN)
Motueka (MU)
Oamaru (OU)
Ohakune (OKN)
Pahiatua (PHA)
Palmerston (PL)
Paraparaumu (PRM)
Queenstown (QST)
Ranfurly (RNF)
Rangiora (RR)
Red Beach (RDB)
Reefton (RN)
Rolleston (ROL)

St Arnaud (SA)
Taihape (TPE)
Tairua (TAR)
Taumarunui (TMN)
Taupo (TPO)
Te Anau (TNU)
Te Kauwhata (TUW)
Te Kuiti (TKT)
Temuka (TK)
Thames (TH)
Tokomaru Bay (TKY)
Tuatapere (TTE)
Turangi (TGI)
Twizel (TWL)
Upper Hutt (UP)
Waipukurau (WY)
Wairoa (WA)
Wanaka (WNK)
Wanganui (WG)
Warkworth (WW)
Wellsford (WFD)
Westport (WP)
Whakatane (WHK)

SCHEDULE 4 - MANAGER OF THE ANS UNIT'S DELEGATED AUTHORITY

As provided in clause 28.3 of these Undertakings, the delegated authorities of the Manager of the ANS Unit at the Approval Date are:

- (a) \$5 million for an investment initiative included in relevant Board approved plan. A business case is required for any investment unless it is already covered by the pre-specified business as usual capital expenditure plan;
- (b) \$3 million for a new investment initiative not included in relevant Board approved plan (but able to be carried out within the overall capex spend allowed by the ANS Business Plan);
- (c) Nil for corporate investments (i.e. buying or selling an interest in another business entity);
- (d) Unlimited for allocation of business as usual operating expense budgets. Individual transaction limits still apply for new transactions but this allows the Manager of the ANS Unit to authorise very large payments under existing contracts (such as the Transfield and Downers patch contracts and power contracts);
- (e) \$10 million for external customer contracts (based on value of the contract);
- (f) \$5 million for new purchase contracts (based on value of the contract);
- (g) \$5 million for property acquisitions/disposals;
- (h) \$5 million for price changes (provided overall revenue matches figure in relevant Board approved plan);
- (i) \$500k for revenue credits/write offs;
- (j) \$Nil for settlement of legal disputes; and
- (k) \$5 million for accepting risk by not taking mitigation action.

SCHEDULE 5 - WHOLESALE UNIT EMPLOYEE EQUITY SCHEME

Telecom may choose to offer Telecom equity to an Employee working for the Wholesale Unit as part of the long-term incentive component of the Employee's remuneration package. If Telecom chooses to offer Telecom equity to an Employee working for the Wholesale Unit, the equity will be offered in accordance with the following requirements:

- (a) the total maximum value of the Telecom equity offered in a financial year will be 20% of the Employee's total remuneration. For the avoidance of doubt, the value of the shares will be determined at the date of the offer using the value Telecom uses to calculate the equity grant; and
- (b) the equity will be provided in the form of restricted shares or share options. The date at which the shares become unrestricted, or on which share options can be exercised, will be determined at the time of the offer, but will usually be 3 years after the date of offer. Performance and/or employment criteria must be met in order for the restricted shares or the share options to be exercisable.