**AUSTRALIAN
COMMUNICATIONS
INDUSTRY FORUM**

acif

IPND DATA
INDUSTRY GUIDELINE
ACIF G619:2007

ACIF G619:2007 *IPND Data* **Industry Guideline**

First published as ACIF G619:2005

Communications Alliance Ltd was formed in 2006 to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services. ACIF is a division of Communications Alliance.

EXPLANATORY STATEMENT

This Explanatory Statement is to be read in conjunction with the ACIF G619:2007 **IPND Data** Industry Guideline "the Guideline".

This Explanatory Statement outlines the background, scope, objectives, processes and procedures described in the Guideline. The anticipated costs and benefits are also discussed.

Expressions used in this Explanatory Statement have the same meaning as in the Guideline.

Background

The Integrated Public Number Database (IPND) is an industry-wide database of all Public Numbers which facilitates the provision of information for purposes specified in the *Telecommunications Act 1997* (Act), the *Telecommunications Integrated Public Number Database Scheme 2007* (IPND Scheme) and the *Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997*(Licence Conditions). As at November 2006, the IPND held approximately 47 million live records. The information contained in the IPND is available for use by the following Data Users:

- Emergency Service Organisations (police, fire and ambulance) for the purpose of responding to emergency calls;

- law enforcement and national security agencies for the purposes of enforcing the criminal law and safeguarding national security;

- CSPs for the purposes of providing Directory Assistance Services, Operator Assistance Services, Operator Services, or Location Dependent Carriage Services;

- PNDPs (Public Number Directory Publishers) for the purpose of publishing and maintaining Public Number Directories; and

- researchers for the purposes specified in the IPND Scheme 2007 and related Ministerial instruments.

Accurate data is essential for all these purposes. Data Providers, their Customers and Data Users all gain a significant advantage from Data Providers supplying complete and accurate PNCD (Public Number Customer Data) to the IPND Manager. This is of paramount importance for Emergency Service Organisations that rely on it when responding to life-threatening or time-critical emergencies. Customers benefit from the IPND having accurate and complete Customer data for the provision of essential emergency services and, when Customers choose to be listed in Directory Related Services. Data Providers benefit from knowing the correct location of the Customer to provide their telecommunications service and associated activities.

2005 Version of the Guideline

In 2003 the former Australian Communications Authority (ACA) engaged a consultant to conduct an audit of the IPND primarily because of concerns about the accuracy of data, as experienced in its use by ESOs.

The audit tested the accuracy of address information through a data sample of the IPND against Australia Post address data.

A number of initiatives to improve data quality were identified as a result of the former ACA audit of the IPND, including:

(i)   a recommendation that Data Providers make greater use of address validation software.

(ii)   ensuring CSPs understand the importance of fulfilling their legislative obligations in regard to providing data to the IPND Manager.

(iii)   provision of audit results to each Data Provider, with the expectation that they rectify errors, identify sources of error and propose system or process improvements, if necessary.

(iv)   development of an industry guideline to assist Data Providers, particularly Customer service personnel, to ensure:

   (a)   accurate and complete Customer name and address information is captured and delivered to the IPND Manager, and ultimately to Data Users;

   (b)   Customer details are collected, and sent to the IPND Manager according to Data User and Data Providers Technical Requirements for IPND; and

   (c)   Data Providers are aware of the importance of Customer data being accurate and complete.

The OCRP formed **OCRP/WG27: IPND Data Validation** Working Group in December 2003 to investigate appropriate tools for validating data across the industry, and to make recommendations for changes to the code as required. OCRP/WG27 found that:

• there was a view that the tool used to assess data quality in the 2003 audit was generally inconsistent with the use of addresses for telecommunications purposes;

• the use of validation software should be strongly encouraged, but not made mandatory;

• the level of complexity in an address increases the chance of the data being considered inaccurate, depending on the validation tools used and the data fields used by the CSP to capture that data; and

• an Industry Guideline on the expected data requirements would provide assistance to Data Providers and should be developed by ACIF.

Compounding the problem of poor data accuracy was that the then extant IPND Technical Specification and user guide, provided by the IPND Manager, gave reference to an Australian Standard (AS4212) that had since been replaced to some extent (by AS4590). It was not clearly identified how these standards related to the intended use of particular address fields. As a result each Data Provider has made its own interpretation of the fields to be used for complex address information.

Current Regulatory Arrangements

Under Part 4 of Schedule 2 of the *Telecommunications Act 1997*, it is compulsory for Data Providers to supply Public Numbers and related information to the IPND Manager (currently Telstra). The Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997 (Licence Conditions) places an obligation upon Telstra to manage the IPND, and also sets out the information that must be included in the IPND and the purposes for which the data can be used. There are also obligations on CSPs in the

Telecommunications (Emergency Call Service) Determination 2002 to ensure that the information provided to the IPND Manager is at all times as accurate and up to date as practicable.

The ACIF C555:2007 *Integrated Public Number Database (IPND)* Industry Code sets out the rights and obligations of Participants regarding the input, use, disclosure and storage of PNCD.

How the Guideline Builds on and Enhances the Current Regulatory Arrangements

The Guideline was developed as a collaborative effort by Data Providers, Data Users and the IPND Manager to improve the quality of data provided to the IPND Manager. It was developed to provide a tool for both Data Providers and Data Users. It highlights the reasons for valid accurate data being provided to Data Users, it shows Data Providers how to ensure the data is entered consistently by showing the expected content of the various data elements, and it allows Data Users to better understand the uses of the various data elements. If followed by both Data Providers and Data Users, this Guideline can achieve the aim of improving the overall quality of data to the benefit of Data Providers, Data Users, the IPND Manager and Customers.

2007 Revision

This revision was required to ensure that the Guideline was consistent with changes to legislation governing the use of data provided to the IPND Manager, the concomitant Ministerial directions, the ACMA IPND Scheme, related Ministerial instruments and the subsequent revision to ACIF C555:2007 *Integrated Public Number Database (IPND)* Industry Code. It also contains additional information to clarify the use of various fields.

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Chairman
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1 INTRODUCTION

1.1 Introduction

1.1.1 The development of the Guideline has been facilitated by Communications Alliance through a Working Committee comprised of representatives from the telecommunications industry, the Australian Communications and Media Authority and Public Number Directory Publishers.

1.1.2 The Guideline should be read in the context of other relevant Codes and Guidelines, including the ACIF C555:2007 *Integrated Public Number Database (IPND)* Industry Code.

1.1.3 The Guideline should be read in conjunction with related legislation, including the *Telecommunications Act 1997.*

1.2 Guideline Review

Review of the Guideline will be conducted after five years of the Guideline being published by Communications Alliance and every five years subsequently.

2 SCOPE AND OBJECTIVES

2.1 Scope

2.1.1 The Guideline is applicable to the following sections of the telecommunications industry under section 110 of the *Telecommunications Act 1997*:

(a) CSPs (who are Data Providers to the IPND Manager); and

(b) Data Users.

2.1.2 The Guideline deals with the quality of data provided to the IPND Manager and encourages accurate entry of data to satisfy the needs of all Data Users, and, in particular, Emergency Service Organisations.

2.1.3 The Guideline attempts to capture the relevant details required to provide accurate data in accordance with the IPND technical specifications and relevant Australian Standards, but where there is variance:

- the requirements of Integrated Public Number Database (IPND) Data Users and Data Providers Technical Requirements for IPND prevails over AS4590; and

- AS4590 prevails over this Guideline.

2.2 Objectives

The objectives of the Guideline are to assist Data Providers, particularly customer service personnel, to ensure:

(a) accurate, complete and up to date Customer name and address information is captured and delivered to the IPND Manager and ultimately to Data Users;

(b) Customer details are collected, and sent to the IPND Manager according to this Guideline and the IPND Data Users and Data Providers Technical Requirements for IPND; and

(c) Data Providers are aware of the importance of Customer data being accurate, complete and up to date.

3 ACRONYMS, DEFINITIONS AND INTERPRETATIONS

3.1 Acronyms

For the purposes of the Guideline, the following acronyms apply:

ACIF	Australian Communications Industry Forum
ACMA	Australian Communications and Media Authority
CLI	Calling Line Identification
CPE	Customer Premises Equipment
CSP	Carriage Service Provider
ESO	Emergency Service Organisation
IPND	Integrated Public Number Database
PMTS	Public Mobile Telecommunications Service
PNCD	Public Number Customer Data
PNDD	Public Number Directory Data
PNDP	Public Number Directory Publisher
VoIP	Voice Over Internet Protocol
WLL	Wireless Local Loop

3.2 Definitions

For the purposes of the Guideline, the following definitions apply:

Act

means the *Telecommunications Act 1997*

Approved Purpose

means in respect of PNCD stored in the IPND, the following activities:

(a) providing Directory Assistance Services;

(b) providing Operator Services or Operator Assistance Services;

(c) publishing and maintaining Public Number Directories;

(d) providing Location Dependent Carriage Services;

(e) the operation of Emergency Call Services or assisting Emergency Services under Part 8 of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*;

(f) assisting Enforcement Agencies or safeguarding national security under Part 14 of the Act, or any other applicable legal requirement;

(g)   verifying the accuracy of information provided by the Data Provider and held in the IPND against the information the Data Provider holds; and

(h)   undertaking research of a kind specified in the *Telecommunications (Integrated Public Number Database – Permitted Research Purposes) Instrument 2007 (No.1)*;

(i)   assisting ACMA, or its nominee, to verify the accuracy and completeness of information held in the IPND; and

(j)   any other purposes where permitted by the Act, and any other relevant laws.

Carriage Service

has the same meaning as in the *Act*.

Carriage Service Provider

has the meaning given by section 87 of the *Act*.

> *Note: CSPs include internet service providers and VoIP service providers.*

Carrier

has the meaning given by section 7 of the *Act*.

Customer

means the person who is contracted to a CSP for the supply of a Carriage Service in association with a Public Number.

Customer Premises Equipment

means:

(a)   any equipment, apparatus, tower, mast, antenna or other structure or thing; or

(b)   any system (whether software-based or otherwise)

that is used, installed ready for use or intended for use in connection with a Carriage Service, and under the regulations, is treated as customer equipment, but does not include a line.

Data Provider

means a CSP who has the obligation to provide PNCD to the IPND Manager, or an entity acting on behalf of the CSP, and who is registered with the IPND Manager.

Data User

means an entity which has access to PNCD or PNDD for an Approved Purpose.

Directory Address

means the physical address, where practicable, as provided for Directory Related Services.

Directory Assistance Services

has the same meaning as given by section 7 of the Act.

Directory Related Services

means Directory Assistance Services, Operator Assistance Services, Operator Services and the publication and maintenance of Public Number Directories.

Emergency Service Organisation

means as defined in section 147 of the *Telecommunications (Consumer Protection and Service Standards) Act 1999.*

Integrated Public Number Database

means the database created pursuant to the Act and the Licence Conditions.

IPND Manager

means the person or association that manages, maintains and administers the IPND.

Licence Conditions

means the *Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997.*

Listed Entry

means PNDD that will be available in Directory Related Services and includes a Standard Telephone Service with:

(a)   a Geographic Number that the Customer has not requested to be excluded from Directory Related Services;

(b)   a Mobile Service Number, that the Customer has agreed to be included in Directory Related Services;

(c)   a Public Number that when called, gives access to a private telephone exchange extension that the Customer has specifically requested to be included in Directory Related Services; or

(d)   any other Public Number that the Customer has specifically requested to being included in Directory Related Services.

Local Service

has the same meaning as in the Numbering Plan.

Mobile Service Number

means a number that has been allocated under the Numbering Plan to a CSP for the provision of a Public Mobile Telecommunications Service.

Operator Assistance Service

means a service involving the connection of a telephone call by an operator, as per the Licence Conditions.

Operator Services

means:

(a)   services for dealing with faults and service difficulties; and

(b)   services of a kind specified in regulation under the Act;

as per the Act and Licence Conditions.

Private Payphone

means any payphone that is not a Public Payphone (whether located in a public place or not).

Public Mobile Telecommunications Service

has the meaning given in section 32 of the Act.

Public Number

means a number specified in the Numbering Plan as referred to in subsection 455(3) of the Act.

Public Number Customer Data

means the data relevant to a Customer and including, as referenced in the Licence Conditions, and for the purposes of this Guideline comprises:

(c)   the Public Number; and

(d)   the name of the Customer; and

(e)   the directory finding name as appropriate; and

(f)   the address of the Customer which is:

(i)   for a Local Service, the Service Address as installed unless not technically feasible;

(ii)   for a PMTS, the physical address, where practicable, as provided by the Customer; and

(iii)   for a Listed Entry or Suppressed Address Entry (where offered), the Directory Address; and

(g)   the unique identifying code of the CSP that provides:

(i)   services for the originating Carriage Services to the Customer; or

(ii)   PMTS to the Customer; and

(h)   an indication of whether the service is to be used for government, business, charitable or residential purposes, if practicable; and

(i)   an indication of whether the service is to be a Listed Entry, an Unlisted Entry or a Suppressed Address Entry (where offered) in a Directory Related Service.

Public Number Directory

has the meaning given by section 285(2) of the Act.

Public Number Directory Data

means a sub-set of the PNCD derived directly from the IPND including:

(a)   the Public Number of the Customer;

(b)   the name of the Customer;

(c)   the directory finding name for a Listed Entry or Suppressed Address Entry;

(d)   the Directory Address of the Customer for a Listed Entry or Suppressed Address Entry (where offered);

(e)   an indication of whether the service is to be used for government, business, charitable or residential purposes, if practicable; and

(f)   an indication of whether the service is to be Listed Entry, an Unlisted Entry or a Suppressed Address Entry (where offered) in a Directory Related Service;

(g)   or as otherwise authorised pursuant to the IPND Scheme.

Public Number Directory Publisher

has the same meaning as given in Telecommunications (Section of the Telecommunications Industry) Determination 2007.

Public Payphone

means a public payphone as defined in the Licence Conditions which is operated by a Carrier or CSP.

Service Address

means the address of the Customer which is:

(a)   for a Local Service, the service address as installed, unless not technically feasible; or

(b)   for a PMTS, the physical address, where practicable, as provided by the Customer.

Standard Telephone Service

has the same meaning as in the *Telecommunications (Consumer Protection & Services Standards) Act 1999*.

Suppressed Address Entry

means a Listed Entry whereby at the Customer's request, and if offered by the CSP, only the Customer's name, locality, State, postcode and Public Number will be made public in Directory Related Services.

Unlisted Entry

means PNDD that will not be available in Directory Related Services and includes a Standard Telephone Service with:

(a)   a Geographic Number that the Customer has specifically requested to be excluded from Directory Related Services;

(b)   a Mobile Service Number that the Customer has not agreed to be included in Directory Related Services;

(c)   the number of a Public Payphone;

(d)   a Public Number that when called, gives access to a private telephone exchange extension that the Customer had not specifically requested be included in Directory Related Services; or

(e)   any other Public Number, that the Customer has not specifically requested to be included in Directory Related Services.

Voice over Internet Protocol

means technology used to transmit voice conversations over a data network using the Internet Protocol.

Wireless Local Loop

means a system used to provide Customer connection to a CSP's network through the use of radio signals for all or part of the connection for the provision of local telephony and other carriage services.

3.3   Interpretations

In the Guideline, unless the contrary appears:

(a)   a reference to a statute, ordinance, code or other law includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of any of them;

(b)   words in the singular includes the plural and vice versa;

(c)   a verb used in the present tense includes that verb used in other tenses

(d)   words importing persons include a body whether corporate, politic or otherwise; and

(e)   a reference to a person includes a reference to the person's executors, administrators, successors, officer, employee, volunteer, agent and/or subcontractor (including but not limited to, persons taking by novation) and assigns.

4 HOW EMERGENCY CALL SERVICES OPERATE

Australia's primary emergency service number is triple zero (000), which can be dialed from any Geographic Number (Local Service) or Mobile Service Number in Australia. There are also two secondary emergency call numbers: 106 which is a real time text-based emergency call service for the hearing or speech impaired, and 112 which is an international emergency service number available from mobile phones which use GSM technology.

When a caller dials an emergency service number in need of emergency assistance, the call is first answered by the Emergency Call Person (currently Telstra for 000/112 and Australian Communications Exchange for 106). The Emergency Call Person asks the caller which Emergency Service Organisation (ESO) is required — police, fire or ambulance — and then connects the caller to the emergency service communications centre that services the caller's location.

When the call is connected to the ESO, the data associated with the call (ie. CLI and relevant information derived from the IPND) is automatically transmitted with the call.

These details are very important to the ESO call-taker for handling the call. The details received are displayed on the control screen in front of the ESO operator taking the call. In many cases the location details of the caller are superimposed on the ESO location mapping and tasking screens based on the data feed derived from the IPND.

In emergency situations, human behaviour isn't always as logical and controlled as at normal times. Therefore ESOs need to be able to confirm details about the emergency.

There are many occasions when emergency callers hang-up on the ESO or get disconnected before all details have been acquired including the exact location and nature of the emergency to ensure the most appropriate response team is tasked. The data derived from the IPND is used by the ESO call-taker to call back to re-establish contact. Many ESOs particularly police use the location data to access internal location files to provide details about the caller's address especially where prior history or warnings have been given.

In real emergencies, time is of the essence. Accurate timely data is essential in order to task Emergency Service response teams as rapidly as possible and with all relevant detail.

The key to this process is deriving accurate up-to-date data from the IPND. Any difficulties with data can quickly extend response times, resulting in delays in help being sent. This can be life threatening.
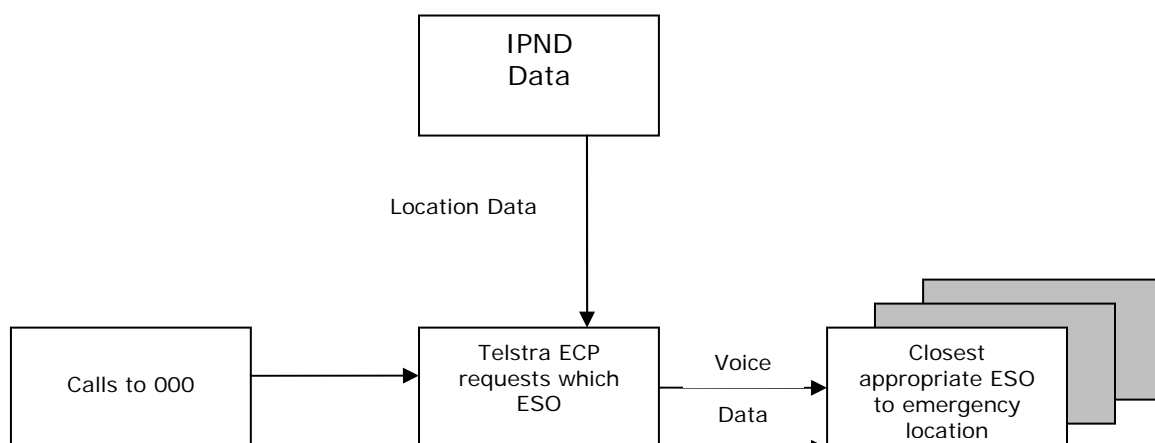
FIGURE 1

An overview of what happens to an emergency call

4.1 Difficulties for Emergency Services Organisations

In most cases, emergency service call-takers are able to meet their strict time limits for accurately locating emergency callers. However, if the call-taker cannot confirm address data with the caller, assistance is dispatched to the address derived from the IPND matching the CLI of the incoming call. If this information is incorrect or out of date, assistance may be dispatched to the wrong place.

Emergency services depend on the accuracy and completeness of address details to meet the rapid response expectations of the community. Potential adverse effects of inaccuracies may include:

- callers in life-threatening or time-critical situations placed at increased risk because of longer response times;

- vehicles dispatched to wrong locations wasting resources, time and money and diverting resources from responding to other emergencies; and

- other calls waiting in the queue while address errors are resolved manually.

Accurate and complete data saves time, money and ultimately lives. For this reason, customer service personnel of Data Providers are important members of Australia's emergency services response team.

5   DATA RULES

5.1   Data Providers' Obligations in Entering PNCD

5.1.1   Australian Standard AS4590 identifies the format that underlies the design of IPND records.

> *NOTE: These standards may be revised or withdrawn by Standards Australia. Current status of these documents should be obtained from Standards Australia.*
> *(http://www.standards.com.au/catalogue/script/search.asp)*

5.1.2   The Customer Record System Extract IPND Upload File (Appendix A) provides sufficient technical information to Data Providers to enable them to provide PNCD, which is required to be transferred to the IPND Manager in accordance with the Act. Data Providers must ensure that all PNCD transferred to the IPND Manager is in the format specified in the Customer Record System Extract IPND Upload File.

> *NOTE: In adhering to the format specified in the Customer Record System Extract IPND Upload File when transferring PNCD to the IPND Manager, Data Providers will reduce the risk of either having entire Upload files rejected, due to file level errors, or receiving an error file with hard and soft errors, which may result in the Data Provider having to transfer another Upload file to the IPND Manager.*

5.1.3   Each IPND field has a specific purpose, and if data is not contained within the appropriate field boundaries, Data Users will have difficulties with using the data. In particular, ESOs may find it difficult to automatically locate callers in emergency situations.

> *NOTE: The table at Appendix A identifies the technical requirements of data in each group of IPND fields.*

5.1.4   Data Providers must:

(a)   provide accurate PNCD to the IPND Manager.

> *NOTE: Even if they appear trivial, the smallest address detail may be crucial to an ESO in locating an emergency, particularly if there is a chance of confusion and may result in vehicles being sent to multiple locations for a single emergency.*

(b)   pay particular attention to the following address guidelines:

(i)   street name correctly spelled, e.g. Bourke or Burke (see Figure 2).

(ii)   correct street type e.g. there may be a street name of which there are several types, e.g. Park Street, Park Road, Park Avenue (see Figure 3).

(iii) street type prefixes and suffixes e.g. North, South, Upper, Lower, etc. Streets may be bisected as a result of railways, rivers, bridges or other roads and the prefix/suffix may be vital.

(iv) the unique combination of street name, street type, street suffix AND locality. All these details are important, particularly where there is the potential for confusion with a similar street name and locality combinations in close proximity, (see Figure 4), or where street numbers restart across different suburbs (see Figure 5).

(v) State/Territory name, particularly where a locality name is used in more than one State/Territory e.g. Box Hill, Burwood, Richmond, etc.

(vi) Postcode.

> *NOTE: The use of address validation software is highly recommended to assist Data Providers in validating the correct entry of address data.*

(c) ensure that each address element is entered into the correct IPND field as identified in the Guideline; and

(d) use abbreviations consistently.

5.1.5 Data Providers must not supply information to the IPND Manager containing:

(a) a forward slash (/) to denote separation of the apartment or unit number from the street number;

(b) data that only has meaning to their organisation;

(c) extra address information that is not specifically required;

(d) text strings such as ' not available', 'n/a', 'xxx', 'obsolete', 'bold listing' or 'nil listing' in name and address fields;

(e) blank, or meaningless, information in mandatory fields;

(f) truncated company names – use only accepted abbreviations, such as 'Pty Ltd'; or

(g) leading zeros in a number field other than Public Number and Postcode fields.

5.1.6 Data Providers should not supply information to the IPND Manager containing:

(a) locality names such as those of subdivisions or planned communities which are not approved by the relevant State or Territory authority;

(b) colloquial locality names, unless they are approved by the relevant State or Territory authority; or

(c) landmarks or common names instead of official addresses;

> *NOTE: All ESOs have agreed standards for common place names and they will convert official addresses in their own way.*

5.2 Customer Name

Customer Name is the name of the person contracted to a CSP for the supply of a Carriage Service.

> *NOTE: In the case of 'Trading As', the contract is with the individual or organisation (that is, the legal person), NOT the 'Trading As' name of the individual or organisation. As such, the minimum information to be sent to the IPND Manager is the person or individual's legal name. In order to assist emergency services, it is however preferred that additional information such as the trading name is included where possible. See examples below.*

Customers' names are entered into the Customer Name 1 and Customer Name 2 fields and into the Long Name field if required.

The use of the name fields will vary according to the type of name provided, as follows:

5.2.1 Family and Given Names

The Customer's family name should be entered in Customer Name 1.

The Customer's given names/initials should be entered into Customer Name 2.

Long Name may be used to enter any extra characters which have been truncated from Customer Name 2.

5.2.2 Non-Residential Names

The name should be entered in Customer Name 1.

Where the Customer name does not fit into Customer Name 1, either:

(i) Customer Name 2 may be used to enter any extra characters which do not fit in Customer Name 1; or

(ii) Long Name may be used to enter the full Customer name.

> *NOTE: When breaking a name across IPND fields, the break should occur, where practicable, following a whole word, at a space, or at a non-alphabetical/numeric character.*
>
> *Trailing spaces are not stored within the IPND. Where Customer Name 1 and Customer Name 2 are concatenated for use, Data Users should insert a space between the 2 fields.*

Examples of Non-Residential names are as follows:

Organisation Name	Customer Name 1 (40 characters)	Customer Name 2 (40 characters)
ARB Corporation Ltd	ARB Corporation Ltd	
Brown Brothers Pty Ltd T/A Browns Heavy Haulage & House Removals 2003	Brown Brothers Pty Ltd T/A Browns Heavy	Haulage & House Removals 2003
Itsy Bitsy Teenie Weenie Yellow Polka Dot Bikini Company Incorporated	Itsy Bitsy Teenie Weenie Yellow Polka	Dot Bikini Co Inc
Mr Jeremy Mitchum T/A Guided Tropical Adventure Company	Mr Jeremy Mitchum T/A Guided Tropical	Adventure Company

EXAMPLE 1

Organisation Name	Customer Name 1 (40 characters)	Long Name (80 characters)
ARB Corporation Ltd	ARB Corporation Ltd	ARB Corporation Ltd
Brown Brothers Pty Ltd T/A Browns Heavy Haulage & House Removals 2003	Brown Brothers Pty Ltd T/A Browns Heavy	Brown Brothers Pty Ltd T/A Browns Heavy Haulage & House Removals 2003
Itsy Bitsy Teenie Weenie Yellow Polka Dot Bikini Company Incorporated	Itsy Bitsy Teenie Weenie Yellow Polka	Itsy Bitsy Teenie Weenie Yellow Polka Dot Bikini Company Incorporated
Mr Jeremy Mitchum T/A Guided Tropical Adventure Company	Mr Jeremy Mitchum T/A Guided Tropical	Mr Jeremy Mitchum T/A Guided Tropical Adventure Company

EXAMPLE 2

NOTE: AS4590 should be referred to for organisation abbreviations.

5.3   Finding Name

The Finding Name is the name under which Customer details are listed for Directory Related Services and must have a valid entry where the List Code is LE or SA. It is usually the name of the Customer, or may be the name of the end user of the service, for example where an employer provides the telephone service to an employee.

5.3.1   Family and Given Names

Where List Code is LE or SA, the Customer's family name should be entered in Finding Name 1 and the Customer's given names/initials should be entered into Finding Name 2.

Customer Name	Finding Name 1 (40 characters)	Finding Name 2 (40 characters)
Achmed Al-hazar	Al-Hazar	A
Trent Brown	Brown	Trent
Van Nguyen	Nguyen	Van
Vertalot Pty Ltd	Ashton-Smythe	Derek
Whamadams Ltd T/A Dynamic Technologies	Nicholson	Aaron
Yelena Kuznetsova	Kuznetsova	Yelena & Oleg

NOTE: The last three examples shown above are where the Customer and end user are different.

EXAMPLE 3

5.3.2   Non-Residential Names

Where the List Code is LE or SA, a name should be entered into Finding Name 1.

Where the name does not fit, Finding Name 2 may be used to enter any extra characters which do not fit in Finding Name 1.

NOTE: When breaking a name across IPND fields, the break should occur, where practicable, following a whole word, at a space, or at a non-alphabetical/numeric character.

Trailing spaces are not stored within the IPND. Where Customer Name 1 and Customer Name 2 are concatenated for use, Data Users should insert a space between the 2 fields.

Organisation Name	Finding Name 1 (40 characters)	Finding Name 2 (40 characters)
ARB Corporation Ltd	ARB Corporation Ltd	
Brown Brothers Pty Ltd T/A Browns Heavy Haulage & House Removals 2003	Browns Heavy Haulage & House Removals	2003
Itsy Bitsy Teenie Weenie Yellow Polka Dot Bikini Company Incorporated	Itsy Bitsy Teenie Weenie Yellow Polka	Dot Bikini Co Inc
Mr Jeremy Mitchum T/A Guided Tropical Adventure Company	Guided Tropical Adventure Company	

EXAMPLE 4

NOTE: AS4590 should be referred to for organisation abbreviations.

5.4   Titles

Where possible, titles (i.e. Mr, Prof, Dr) are to be used with names and entered in the 'Title' field.

NOTE: AS4590 should be referred to for title abbreviations.

5.5   List Code

IPND field 9 identifies the List Code that is used to identify the Customer's Directory Related Services requirements. Valid values are:

- LE for a Listed Entry;

- UL for an Unlisted Entry; or

- SA for a Suppressed Address Entry.

5.6   Usage Code

IPND field 10 identifies the usage of the service. Valid values are:

- B for a Business service;

- C for a Charity service;

- G for a Government service;

- R for a Residential service; or

- N where the usage is not available.

Where possible, usage codes B, C, G or R should be used. N should only be used when the usage is not available.

5.7   Type of Service

IPND field 11 is optional and identifies the type of service.

NOTE: Data Providers cannot be held responsible for the reliability of the information held within this IPND field as the information may have become out of date due to Customer action/s that are beyond the ability of the CSP to identify or control.

Recommended values are:

(a)   FAX – facsimile service - may be fixed or mobile;

(b)   FCALL – Freecall (18xx) service;

(c)   FIXED – geographic number. A Local Service, which depending on CPE may include use for voice (including payphone), fax and data services. VoIP services may be included in this category;

> *NOTE: Local Services can be delivered via VoIP technology using geographic numbers and non-geographic numbers. VoIP technology enables users to be nomadic ie they can access their Local Service using VoIP from different geographic locations while retaining the same geographic number. Where a CSP is providing a Local Service using VoIP, it should set the Alternate Address flag in the IPND record as "True". In these cases, reliance should not be placed on the geographic address provided as being the correct physical location of the Customer.*

(d)   LCALL – Local call service;

(e)   MOBIL – PMTS, includes all technology types (i.e. CDMA, GSM, WCDMA, etc);

(f)   ONE3 – Local rate call service;

(g)   MODEM – Data service, may be fixed or mobile;

(h)   PAGER – Pager services, includes all technology types;

(i)   PCS - Personal Communications Service;

(j)   PREM – Premium (19xx) service. ESOs should not receive calls from these numbers;

(k)   PAYPH – Public Payphone;

(l)   PRVPY– Private Payphone;

> *NOTE: May not be used to identify a payphone in all instances as this is beyond the control of the CSP to control the CPE attached to a service.*

(m)   WLL – Wireless Local Loop service.

5.8   Customer Contact

Customer Contact information (IPND fields 12.1, 12.2 and 12.3) is mandatory for services which have the Alternate Address flag set to 'T' or True. The Customer Contact should be the relevant person to provide information about the service.

5.9   CSP Code

IPND field 13 is the unique numeric code provided by the IPND Manager as the unique identifier of the CSP for the service.

5.10   Data Provider Code

IPND field 14 is the unique alphabetical code provided by the IPND Manager as the unique identifier of the Data Provider. The Data Provider Code field is used to identify the actual provider of the data, via a system interface, to the IPND Manager. The Data Provider may or may not be the same as the CSP for a service.

5.11 Transaction Date

IPND field 15 is the date of the last transaction sent from the Data Provider's system for the service. Data Users should note that this date may not represent a Customer initiated transaction. Data Providers or CSPs may be required to initiate transactions for other reasons in order to update the IPND Manager, e.g. change of Location Name or Postcode, or a refresh of data to correct identified data issues.

5.12 Service Status Date

IPND field 16 is the date the service attained the current status. For an active service, the date the service was connected. For an inactive service the date the service was disconnected.

5.13 Alternate Address

IPND field 17 is a mandatory field used to assist in identifying the physical location of the Customer and assists Emergency Service Organisations in their communications with the caller.

The flag is set to True where the Service Address provided may not be the physical location where the service originates, and therefore the Customer calling from this geographic number may not be at the physical address derived from the IPND. Typically, this can apply to calls made from a Local Service connected to a PABX, when using nomadic services such as VoIP, or when calling from geographic numbers used to relay emergency calls.

The flag is set to False where the Service Address provided is the physical location where the service originates or when the Public Number is a Mobile Service Number.

> NOTE: Data Providers cannot be held responsible for the ongoing reliability of the information provided to the IPND Manager where Customers take action that is beyond the ability of the CSP to identify or control.

5.14   Structure for Service Address

The following example is informative.

<div align="center">

TABLE 1
Example of a Service Address

</div>

Using the example: Unit 6A-8C, Level 3A, Brown Building Rear, 15A-17C
Main Street North, CITIZENVILLE VIC 3999

IPND Field Number	Address Fields	IPND Field Name
7.1.1	U	Service Building Type
7.1.2	6	Service Building 1st Nr
7.1.3	A	Service Building 1st Suffix
7.1.4	8	Service Building 2nd Nr
7.1.5	C	Service Building 2nd Suffix
7.2.1	L	Service Building Floor Type
7.2.2	3	Service Building Floor Nr
7.2.3	A	Service Building Floor Nr Suffix
7.3	Brown Building	Service Building Property
7.4	Rear	Service Building Location
7.5.1	15	Service Street House Nr 1
7.5.2	A	Service Street House Nr 1 Suffix
7.5.3	17	Service Street House Nr 2
7.5.4	C	Service Street House Nr 2 Suffix
7.6.1	Main	Service Street Name 1
7.6.2	ST	Service Street Type 1
7.6.3	N	Service Street Suffix 1
7.6.4		Service Street Name 2
7.6.5		Service Street Type 2
7.6.6		Service Street Suffix 2
7.7	CITIZENVILLE	Service Address Locality
7.8	VIC	Service Address State
7.9	3999	Service Address Postcode

5.15 Address Guidelines

5.15.1 A Service Address must always be provided.

NOTE: The Service Address is particularly important to 000 operators, emergency services and law enforcement as this is used to locate the Customer.

Although the handling of emergency calls from PMTS and WLL services associated with mobile devices do not depend upon address information to the same extent as calls from a Local Service, it is still necessary to ensure that the IPND holds accurate address information for PMTS (including pre-paid services) and WLL services associated with mobile devices.

If an emergency caller from a PMTS or WLL service associated with mobile devices is unable to speak, an ESO would typically dispatch a vehicle to the address of the service that is derived from the IPND.

5.15.2 The Directory Address must be provided for Listed Entries and should contain the address which the Customer wants listed in Directory Related Services.

5.15.3 For Listed Entries where the Service Address and the Directory Address are the same, all relevant information should be provided in both sets of address fields, even if identical.

5.15.4 For Suppressed Address Entries where the Service Address and the Directory Address are the same, all relevant information should be provided in both sets of address fields, even if identical. It is the responsibility of the PNDP to ensure that only the Locality, State and Postcode are listed.

5.15.5 The Directory Address should be left empty for an Unlisted Entry.

5.15.6 It is preferred that AS4590 normative abbreviations are used by the Data Providers to ensure consistency of the data in the IPND.

5.15.7 Where a street name does not fit into the space available in Service Street Name 1, it should be broken at the end of a word and the remainder entered into Service Street Name 2.

NOTE: When breaking a name across IPND fields, the break should occur, where practicable, following a whole word, at a space, or at a non-alphabetical/numeric character.

Trailing spaces are not stored within the IPND. Where Service Street Name 1 and Service Street Name 2 are concatenated for use, Data Users should insert a space between the 2 fields.

5.16   International Addresses

5.16.1   The IPND has been designed to store information about Customers who reside in Australia and use Australian telecommunications services. However, it is recognised that overseas visitors are regular users of pre-paid mobile services and may tender an international address when activating their accounts.

5.16.2   Where an international address is provided to the IPND Manager, the following fields must be populated as follows:

- State must be OS

- Postcode must be 0000

> NOTE: The Locality field should be populated with the overseas locality to avoid a soft error.

5.16.3   International addresses can be entered using four free-text fields, which are mapped to the following IPND fields:

- Service Building Property (#7.3)

- Service Building Location (#7.4)

- Service Street Name 1 (#7.6.1)

- Service Street Name 2 (#7.6.4)

5.16.4   This method is used to handle the wide variety of international address formats that cannot be accommodated using standard IPND fields.

5.17   Private Streets

Private streets may or may not be recognised by jurisdictional authorities. Currently there is no Australian standard for the formal recognition of a private street.

Issues may arise when an address contains private street name information that has not been officially recognised and published by the jurisdictional authority to all government and business utilities and authorities. Typical interested parties include, State Lands Departments, Electoral Commission, Communications Carriers, Emergency Service Organisations etc.

The passing of a Customer's private street name to the IPND Manager as a public street name could result in the IPND storing a 'street' name which may either duplicate, or may not be recognised, as a valid public street name by Data Users.

Where a private street name is not officially recognised by the responsible jurisdictional authority then it should be regarded as a component of a complex site address and as such only be stored and used as additional address information of the property it is located within.

Examples of complex sites that may contain private streets include retirement villages, industrial parks, gated or non-gated communities, caravan parks, universities, hospitals, shopping centres and military bases.

It is recommended that Data Providers validate addresses to prevent private street name information being sent to the IPND Manager as a 'stand alone' address which may be confused with a public street address.

A private street name will form part of the complex site address of the property and will only be stored as sub address data related to the prime (officially recognised) address which includes the public street name (see Appendix B Airport, Caravan Park, Educational Institutions).

6 EXAMPLES OF ESSENTIAL ADDRESS DETAILS

6.1 Use of correctly spelled street name and street type
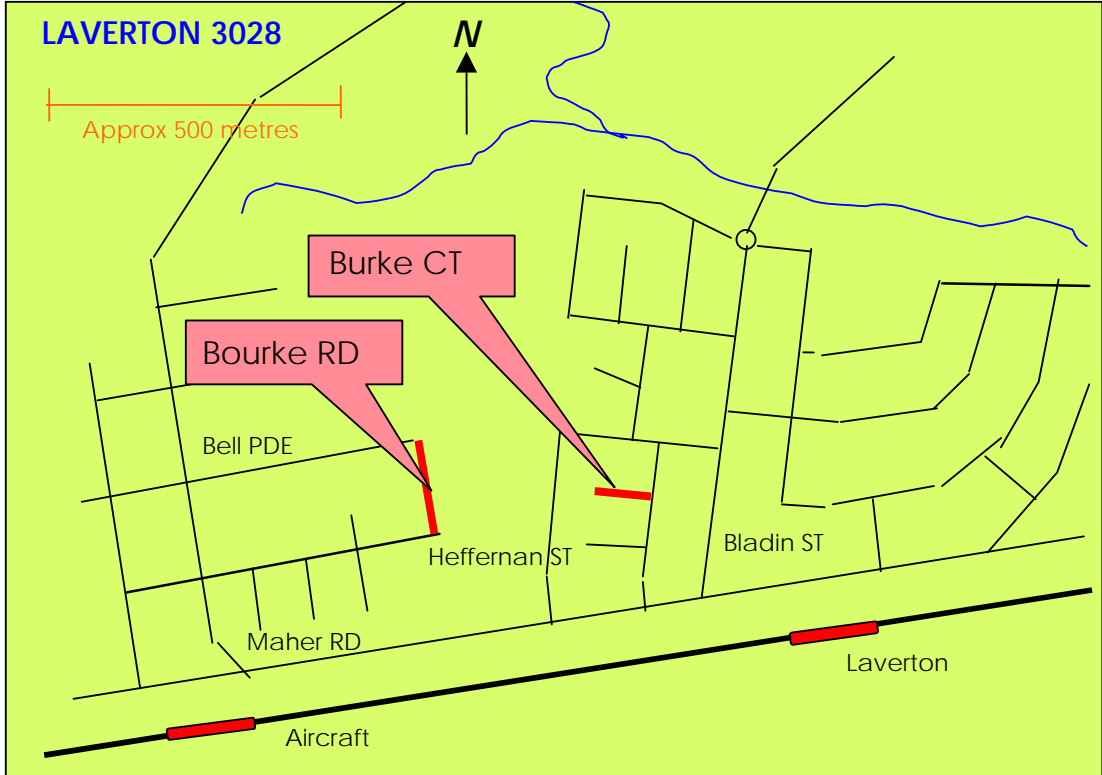
FIGURE 2

Actual street names and types in the Melbourne suburb of Laverton

6.2 Use of correct street type
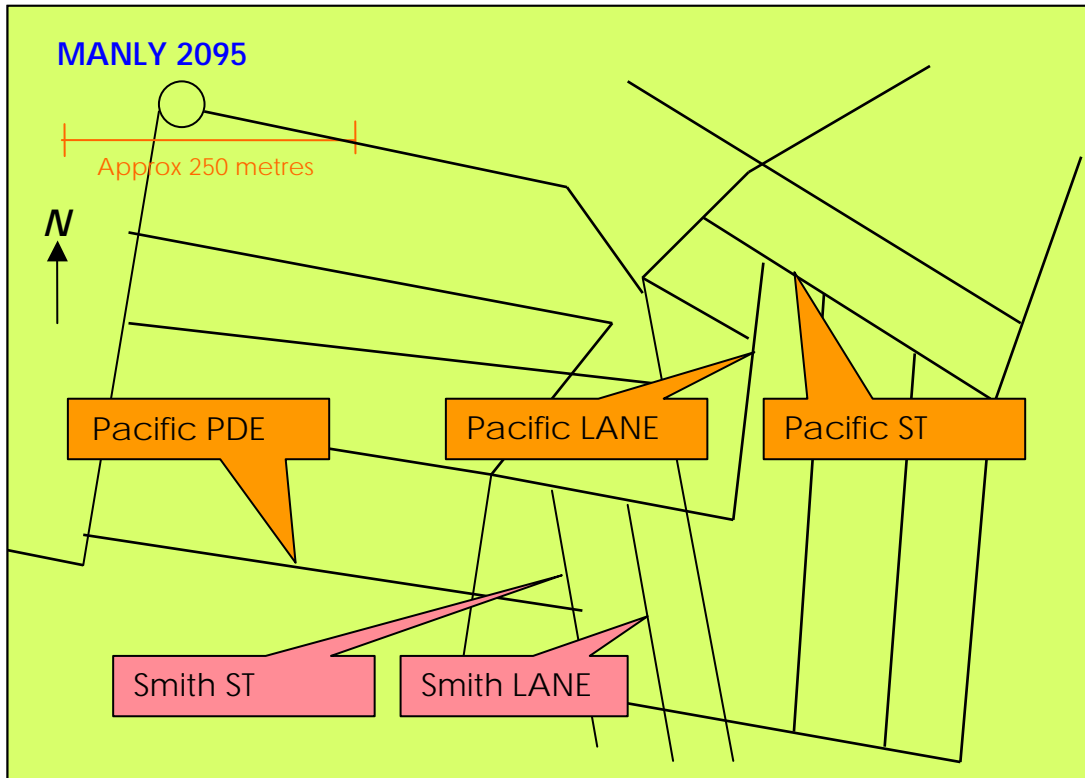
FIGURE 3

Example of multiple street types in the Sydney suburb of Manly

6.3   Use of correct street details in complex address situations #1

Approx 500 metres

Brunswick ST N
Fitzroy North

Edinburgh Gardens

Brunswick ST
Fitzroy North

ALEXANDRA PDE

QUEENS PDE

FITZROY NORTH 3068

EASTERN HWY

Brunswick ST
Fitzroy

FITZROY 3065
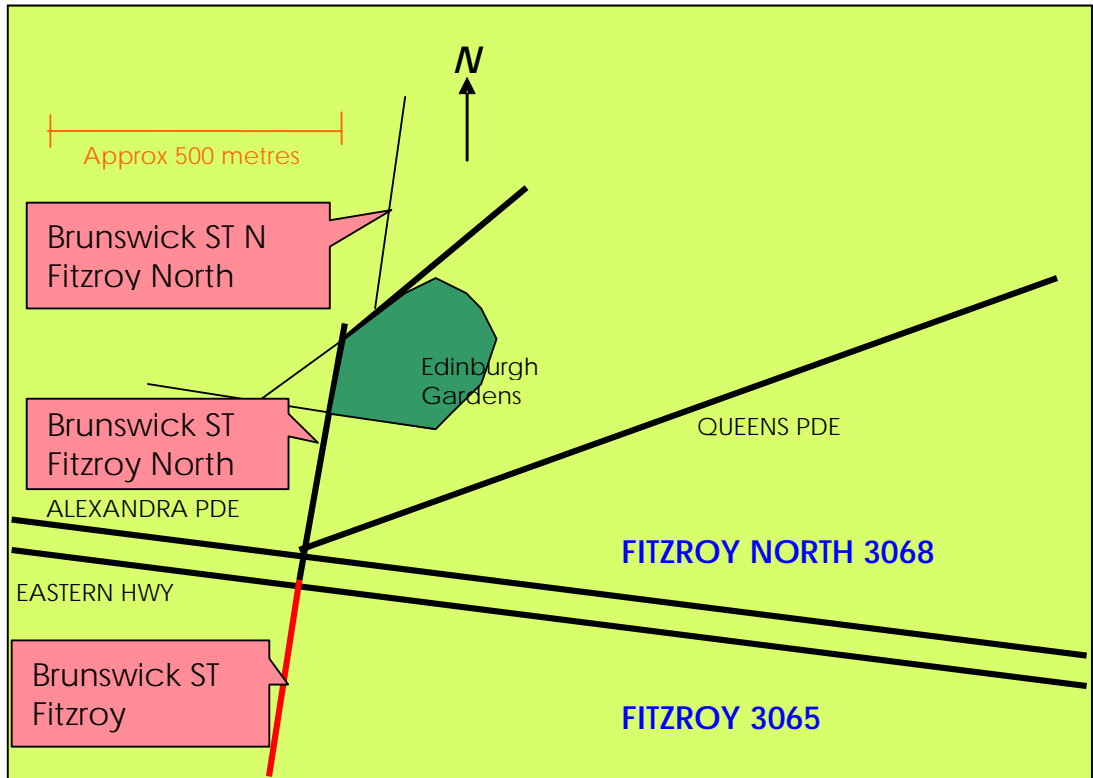
FIGURE 4

Potential confusion with three street segments having similar name-suburb combinations in inner Melbourne

6.4   Use of correct street details in complex address situations #2
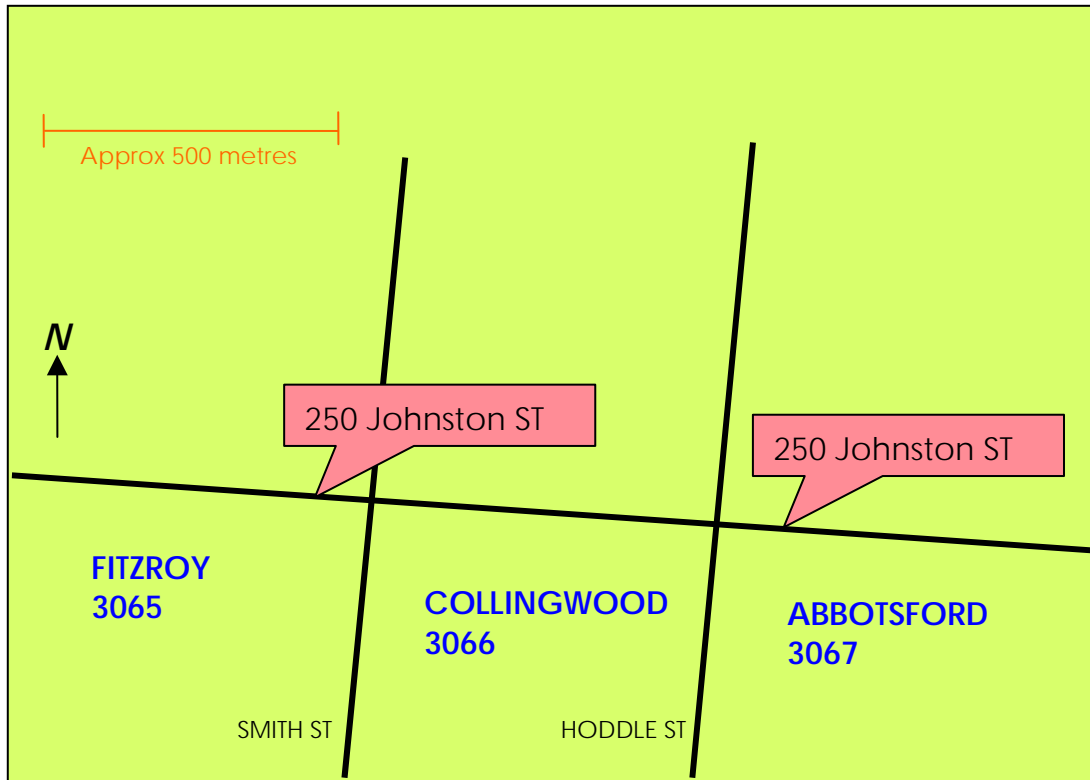
FIGURE 5

Potential confusion caused by re-starting street numbers

across different suburbs

7 IPND AUDIT

7.1 IPND Audits - 2004 to 2006

7.1.1 ACMA has conducted three annual audits of the entire IPND from 2004 to 2006. Further audits may be conducted in the future.

7.1.2 The key focus of the audits was to address data quality, with an aim to eliminate identified errors, minimise the generation of new errors and effectively measure improvement in quality levels.

7.1.3 ACMA, Data Providers, Data Users and the IPND Manager agreed to use the Geo-Coded National Address File (G-NAF) produced by the Public Sector Mapping Agency as the referential database of address information for the purpose of auditing the IPND.

7.1.4 The audit assigned each IPND record an overall address score for how well it matched G-NAF. A graduated scale approach was used (i.e. a high match and highly usable (300+ points), a good match and highly usable (200-299 points), reasonable match and some usability (100-199 points), poor match and poor usability (0-99 points)) to demonstrate the usefulness of address data that would otherwise be regarded as technically incorrect.

7.1.5 Independent to the matching process, validity tests were also conducted on the individual address components. These test results highlighted specific components of an address that may be of poor quality and would therefore be unlikely to achieve a good match with G-NAF.

7.1.6 Each Data Provider was supplied with its individual audit results and was expected to:

(a) verify results;

(b) identify sources of error;

(c) correct genuine errors;

(d) propose any system and/or process improvements necessary to improve data quality; and

(e) advise the time frame within which such improvements will be implemented.

7.1.7 Overall audit results were published in ACMA's annual Communications Report.

8   REFERENCES

Publication	Title
Industry Codes	
ACIF C555:2007	Integrated Public Number Database (IPND)
Industry Documents	
Privacy Act 1988	
Telecommunications Act 1997	
Telecommunications (Consumer Protection and Service Standards) Act 1999	
Telecommunications Integrated Public Number Database Scheme 2007	
Telecommunications Numbering Plan 1997	
Telecommunications (Section of the Telecommunications Industry) Determination 2007	
Telecommunications (Emergency Call Service) Determination 2002	
Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997	
Integrated Public Number Database (IPND) Data Users and Data Providers Technical Requirements for IPND (Telstra/Logical Technologies, February 2000)	
Integrated Public Number Database (IPND) IPND User Guidelines (Telstra/Logical Technologies, November 2002)	
Australian Standard AS4590:2006 Interchange of client information	
PSMA Australia Geocoded National Address File (G-NAF)	

APPENDIX

A   CUSTOMER RECORD SYSTEM EXTRACT IPND UPLOAD FILE

Definitions

Term	Definition
Mandatory	Mandatory indicates that the IPND expects to find the field populated in the upload file and the field must contain a valid value; otherwise the entire file or record will be rejected. E.g. If the file source field is not populated the entire file will be rejected. If the Public Number field is not populated the IPND will not accept the record. A data provider must include a Mandatory field in the Upload file to the IPND. This Mandatory field must be formatted and populated with valid customer information in the field as specified in the technical requirements.
Optional	Optional indicates that the IPND expects to find the field in the upload file and the field may contain a valid value or may be left empty (space filled). A data provider must include an Optional field in the Upload file to the IPND (It is the information contained within the field that is optional and not the field itself). This Optional field must be formatted and populated with valid customer information in the field or may be left empty (space filled) as specified in the technical requirements.
Mandatory File Error (MF)	The field must contain a valid value; otherwise the entire file will be rejected.
Mandatory Hard(MH)	This field must contain a valid value; otherwise the record will not be applied to the IPND
Mandatory Soft (MS)	The field must contain a valid value; otherwise a soft error will be returned, but the record will still be applied to the IPND, wherever possible.
Warning (W)	If the field does not contain a valid value, a warning will be returned.
Case	This specifies a preferred case where one exists. The case specified is based primarily on AS4212.
U	Upper Case - All characters in upper case.
C	Capitalised - The first character of each word in uppercase; subsequent characters in lower case.
Format	Describes the format in which data should be entered.
X (n)	Denotes an alpha-numeric field of n characters. To be left justified. Leading zeros will be retained.
N (n)	Denotes a numeric field of n characters. To be right justified. Leading zeros will not be stored by the IPND.

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
	Header Record							**One per file**	
1	Record Type	X (3	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated.	U	Valid value is HDR	Header		There are three types of records that the database recognises as part of a file. They are headers, footers (or trailers) and actual data records that have no prefix. The record types 'HDR' and 'TRL' are abbreviations for header and trailer.	• MF 249 Invalid record type found in upload file header.
2	File Type	X (6)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated.	U	Valid value is IPNDUP			In an upload file the file type field will be populated with 'IPNDUP'. Any other entry is considered invalid.	• MF 248-Invalid file type found in upload file header.
3	File Source	X (5)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated.		Valid value to be provided by the IPND Manager.	The IPND Manager allocates a unique file source code on receipt of an application from a Data Provider		The File Source Code is a 5-character code embedded in the filename which identifies the Data Provider's source system sending the data. Each Data Provider will have at least one but may have a number of different codes.	• MF 247-Invalid file source found in upload file header

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
4	File Sequence No.	N (7)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated.		Unique consecutive number for file from file source.	The file sequence number will be sequential and contiguous. <NNNNNNN> is a file sequence number with leading 0. E.g file sequence number 1 will be uploaded to the IPND as 0000001, sequence number 2 will be uploaded as 0000002 and so on.		The File Sequence Number is used to uniquely identify each file created within the same File Source Code. The Sequence Number is a component of the filename and refers to the position of an individual file in relation to the other files provided from this File Source. This number is incremented by 1 for each new file created and sent to the database.	• MF 001-File out of sequence • MF 225-Embedded spaces found in upload file sequence number • MF 227-Leading space(s) found in upload file sequence number • MF 228-Non-digit characters found in upload file sequence number • MF 230-Trailing space(s) found in upload file sequence number • MF 250-Invalid character(s) found in upload file header sequence number. • MF 251-Upload file header sequence number is null.

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
5	File Creation Start	N (14)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated.		This field must contain a valid date and time and should be provided in the format (YYYYMMDD HHMMSS)	Date and time creation of the data file commenced.		This field contains details of the date and time the creation of the data file commenced. The file header create start date field is 14 digits in length and follows the format YYYYMMDDHHMMSS	• MF 246-Upload file header create start date is null. • MF 245-Invalid upload file header create start date format.
6	Filler	X (870)	Padding to make all records in file same length.		SPACES	ASCII 32		Padding to make all records in file same length.	
7	Record Delimiter	1			\n	ASCII 10		Newline	

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
	Transaction Record								
1	Public Number	X (20)*	Mandatory. The record will be rejected by the IPND if a valid value is not provided and a Mandatory Hard (MH) error will be generated.		Public Number	Public Number means a number specified in the Numbering Plan.		The Public Number is the unique identifier for the service. * This field is defined as type X to ensure leading zeros can be entered; however only digits may be used. This field is treated as a "string" that only accepts numeric characters. Leading zeros are not stripped out. It must be left justified and not left padded with spaces. The number should be provided as is conformant with the numbering plan, i.e. for public number 03 12345678 provide the string 0312345678.	• MH 006-Missing Public number. • MH 110-Non numeric in public number. • MH 101-Public Number includes embedded spaces. • MH 100-Public Number includes leading spaces.
2	Service Status Code	X (1)	Mandatory. The record will be rejected by the IPND if a valid value is not provided and a Mandatory Hard (MH) error will be generated.	U	Valid values are C or D	C - Connected D - Disconnected		The Service Status Code is a one-character field indicating the status of the service record. A data record will have a Service Status Code value that is either 'C' for connected or 'D' for disconnected.	• MH 013-Incorrect service status code. • MH 007-Missing service status code.

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
3	Pending Flag	X (1)	Mandatory. The record will be rejected by the IPND, if a valid value is not provided and a Mandatory Hard (MH) error will be generated.	U	Valid values are T or F	T - True F - False		Identifies whether the transaction is to happen at some future time.	• MH 014-Incorrect pending flag. • MH 008-Missing Pending flag.
4	Cancel Pending Flag	X (1)	Mandatory. The record will be rejected by the IPND, if a valid value is not provided and a Mandatory Hard (MH) error will be generated.	U	Valid values are T or F	T - True F - False		Identified whether a pending transaction is to be cancelled. (A service cancellation is regarded as a disconnection).	• MH 009-Missing cancel pending flag. • MH 015-Incorrect cancel pending flag. • MH 102-Cancel pending service flag set to true for non-pending service. • MH 105-Pending service cancel for a non-pending service.
5	Customer Name								
5.1	Customer Name 1	X (40)	Mandatory. Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error.	C	Surname/ Company Name 1	Surname/ Company Name 1	2.4	Surname/ Company Name 1	• 020-Missing customer name 1

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
5.2	Customer Name 2	X (40)	Optional	C	Given/ Company Name 2		2.3	Given/ Company Name 2	
5.3	Long Name	X (80)	Optional	C	Characters which do not fit into Customer Name 2			Characters which do not fit into Customer Name 2	
5.4	Customer Title	X (12)	Optional	C	Title		2.1	Title	
6	Finding Name								
6.1	Finding Name 1	X (40)	Optional if the Public Number is tagged as "UL". Mandatory if the Public Number is tagged as "SA" or "LE". Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error.	C	Surname/Company Name 1		2.4	The Directory Finding Name field must have a valid entry if the data record List Code is Listed Entry or Suppressed address. The Finding Name is the name under which customer details are listed for Directory Related Services.	• 031-Missing finding name
6.2	Finding Name 2	X (40)	Optional	C	Given or Initials/Company Name 2		2.3	Given or Initials/Company Name 2	
6.3	Finding Title	X (12)	Optional	C	Title		2.1	Title	

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
7	Service Address								
7.1	Service Building Subunit								
7.1.1	Service Building Type	X (6)*	Optional	U	Type of premises		3.1(i)	Type of premises * AS 4212 specifies X (2).	
7.1.2	Service Building 1st Nr	X (5) *	Optional		First Number		3.1(ii)	First Number * AS 4212 specifies N (5)	
7.1.3	Service Building 1st Suffix	X (1)	Optional		First Suffix		3.1(iii)	First Suffix	
7.1.4	Service Building 2nd Nr	X (5)	Optional		Second Number		3.1(iv)	Second Number * AS 4212 specifies N (5)	
7.1.5	Service Building 2nd Suffix	X (1)	Optional		Second suffix of premises.		3.1 (v)	Second suffix of premises	
7.2	Service Building Floor								
7.2.1	Service Building Floor Type	X (2)	Optional	U	Building floor type		3.2 (i)	Building floor type	
7.2.2	Service Building Floor Nr	X (4)	Optional		Floor Number		3.2(ii)	Floor Number	
7.2.3	Service Building Floor Nr Suffix	X (1)	Optional		Floor Number suffix.		3.2(iii)	Floor Number suffix	

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
7.3	Service Building Property	X (40)	Mandatory if the Service Street Name 1 is empty. Note the IPND will process the record but generate a Mandatory Soft (MS) error		Building Name		3.3	Building Name. Eg Treasury Building.	• 104-Missing service building property or street name
7.4	Service Building Location	X (30)	Optional				3.4	Eg REAR, Corner.	
7.5	Service Street House								
7.5.1	Service Street House Nr 1	X (5)	Optional				3.5 (i)	Building Number.	
7.5.2	Service Street House Nr 1 Suffix	X (3)*	Optional				3.5(ii)	Building Number suffix * AS4212 specifies X (1)	
7.5.3	Service Street House Nr 2	X (5)	Optional				3.6 (i)	2nd number associated with the building	
7.5.4	Service Street House Nr 2 Suffix	X (1)	Optional				3.6 (ii)	2nd number suffix	
7.6	Service Address Street								
7.6.1	Service Street Name 1	X (25)	Mandatory if the Service Building Property is empty. Note the IPND will		Name part of street		3.8 (i)	Name part of street	• 104 Missing service building property or street name

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
			process the record but generate a Mandatory Soft (MS) error.						
7.6.2	Service Street Type 1	X (8)*	Optional	U			3.8(ii)	Street type abbreviation * AS 4212 specifies X (4)	
7.6.3	Service Street Suffix 1	X (6)*	Optional	U			3.8(iii)	Suffix part of street. Eg N (North). * AS4212 specifies X (2).	
7.6.4	Service Street Name 2	X (25)	Optional					Name part of street that does not fit into Service Street Name 1.	
7.6.5	Service Street Type 2	X (4)	Optional	U			3.9(ii)	Street type of abbreviation.	
7.6.6	Service Street Suffix 2	X (2)	Optional	U			3.9(iii)	Suffix part of street. Eg N (North)	
7.7	Service Address Locality	X (40)	Mandatory. Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error	U	Suburb, town, locality	Suburb, town, locality	3.10	The Service Address Locality is a vital part of the Service address, indicating the locality, suburb or town of the Public Number. Only approved names should be entered	• 052- Invalid service address locality • 053-Invalid location, state postcode combination • 084-Missing service address locality
7.8	Service Address State	X (3)	Mandatory. Note the IPND will process the record if not populated and	U	State or Territory	State or Territory	3.12	The Service Address State is an important part of the Service Address details in a data record	• 051-Invalid service address state • 053-Invalid location, state,

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
			generate a Mandatory Soft (MS) error					indicating the State or Territory in which the Public Number is located.	postcode combination • 085-Missing service address state
7.9	Service Address Postcode	N (4)	Mandatory. Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error		Valid Postcode	Valid Postcode	4.2	The Service Address Postcode is an important part of the Service Address details in a data record. This field should not contain non-numeric characters.	• 050-Invalid service address postcode • 053-Invalid location, state, postcode combination • 086-Missing service address postcode • 080-Non numeric in service address postcode
8	Directory Address								Address for Directory Related Services
8.1	Directory Building Subunit								
8.1.1	Directory Building Type	X (6)*	Optional	U			3.1 (i)	Type of premises *AS4212 specifies X (2)	
8.1.2	Directory Building 1st Nr	X (5)*	Optional				3.1(ii)	First number * AS4212 specifies N (5)	
8.1.3	Directory Building 1st Suffix	X (1)	Optional				3.1(iii)	First suffix	
8.1.4	Directory Building 2nd	X (5)*	Optional				3.1(iv)	Second Number	

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
	Nr							* AS4212 specifies N (5)	
8.1.5	Directory Building 2nd Suffix	X (1)	Optional				3.1(v)	Second suffix of premises	
8.2	Directory Building Floor		Optional						
8.2.1	Directory Building Floor Type	X (2)	Optional	U			3.2 (i)	Building Floor Type	
8.2.2	Directory Building Floor Nr	X (4)	Optional				3.2(ii)	Floor Number	
8.2.3	Directory Building Floor Nr Suffix	X (1)	Optional				3.2(iii)	Floor Number Suffix	
8.3	Directory Building Property	X (40)	Optional if the Public Number is tagged as "UL". Mandatory if the Public Number is tagged as "SA" or "LE" and Directory street name 1 is empty. Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error.		Building Name		3.3	Building/Property Name. Eg Treasury Building, Kickatinalong.	• 103-Missing directory building property or street name
8.4	Directory	X (30)	Optional				3.4	Eg REAR, Corner	

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No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
	Building Location								
8.5	Directory Street House		Optional						
8.5.1	Directory Street House Nr 1	X (5)	Optional				3.5 (i)	Building Number	
8.5.2	Directory Street House Nr 1 Suffix	X (3) *	Optional				3.5 (ii)	Building Number Suffix * AS 4212 specifies X (1)	
8.5.3	Directory Street House Nr 2	X (5)	Optional				3.6 (i)	2nd number associated with the building	
8.5.4	Directory Street House Nr 2 Suffix	X (1)	Optional				3.6 (ii)	2nd number suffix	
8.6	Directory Address Street								
8.6.1	Directory Street Name 1	X (25)	Optional if the Public Number is tagged as "UL". Mandatory if the Public Number is tagged as "SA" or "LE" and Directory Building Property is empty.				3.8 (i)	Name part of Street	• 103-Missing directory building property or street name
8.6.2	Directory Street Type 1	X (8)*	Optional	U			3.8(ii)	Street type abbreviation * AS4212 specifies X (4)	

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
8.6.3	Directory Street Suffix 1	X (6)*	Optional	U			3.8(iii)	Suffix part of street. Eg N (North) *AS4212 specifies X (2).	
8.6.4	Directory Street Name 2	X (25)	Optional					Name part of street that does not fit into Directory Street Name 1	
8.6.5	Directory Street Type 2	X (4)	Optional	U			3.9(ii)	Street type abbreviation	
8.6.6	Directory Street Suffix 2	X (2)	Optional	U			3.9 (iii)	Suffix part of street. Eg N (North)	
8.7	Directory Address Locality	X (40)	Optional if the Public Number is tagged as "UL". Mandatory if the Public Number is tagged as "SA" or "LE". Note the IPND will process the record if not populated and generate a Mandatory Soft error.	U	Suburb, town, locality		3.10	Suburb, town, locality	• 033 Missing Directory Address locality
8.8	Directory Address State	X (3)	Optional if the Public Number is tagged as "UL". Mandatory if the Public Number is tagged as "SA" or "LE". Note the IPND will process the record if not populated and	U	Valid State or territory		3.12	State or Territory	• 034 Missing Directory Address state

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
			generate a Mandatory Soft error.						
8.9	Directory Address Postcode	N (4)	Optional if the Public Number is tagged as "UL". Mandatory if the Public Number is tagged as "SA" or "LE".		Valid Postcode		4.2	Postcode, should not include any non-numeric characters	• 035- Missing directory address postcode • 081-Non numeric in Directory Address postcode
9	List Code	X (2)	Mandatory. The record will be rejected by the IPND, if a valid value is not provided and generate a Mandatory Hard (MH) error.	U	Valid values are LE, UL and SA	LE - Listed Entry UL - Unlisted Entry SA-Suppressed Address		Indicates whether the customer has explicitly stated that their directory entry is to be Listed, Unlisted or Listed with a Suppressed Address.	• MH 016-Incorrect list code • MH 010 Missing List Code
10	Usage Code	X (1)	Mandatory. Note the IPND will process the record if not populated and generate a Mandatory Soft error.	U	Valid values are R, B, G, C and N	R-Residential B-Business G-Govt C-Charity N-Not Available		'N' should only be used where the usage is unknown.	• MS 026-Missing usage code • MS 036-Incorrect usage code
11	Type of Service	X (5)	Optional	U	Expected values are: FAX FCALL FIXED LCALL	 Facsimile services Freecall services Geographic numbers Local call		The Type of Service field identifies the type of service. This is particularly important for ESOs to identify the appropriate processes to be followed to ascertain the customer's location.	

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
					MOBIL	services PMTS services			
					MODEM	Data services.			
					ONE3	Local rate call services			
					PAGER	Pager services Personal Communications Services			
					PCS	Public			
					PAYPH	Payphone services			
					PRVPY	Private Payphone			
					PREM	Premium services			
					WLL	Wireless Local Loop services			
12	Customer Contact								
12.1	Customer Contact Name 1	X (40)	Mandatory if Alternate Address code is T. Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error.		Customer contact surname.			Surname.	• MS 047-Missing customer contact name 1
12.2	Customer Contact Name 2	X (40)	Optional field		Customer contact given name			Given Name	

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
12.3	Customer Contact Nr	X (20)	Mandatory if Alternate Address code is T. Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error.		Public Number of customer contact			Public number of above	• MS 048-Missing customer contact number
13	Carriage Service Provider Code	X (3)	Mandatory. Note the IPND will process the record if not populated with a valid value and generate a Mandatory Soft (MS) error.		Valid value to be provided by the IPND Manager.	Carriage Service Provider (CSP) code		The IPND Manager allocates a unique CSP code on receipt of an application from a CSP. The CSP Code field is used to identify the responsible CSP for the service, and may differ for each service record sent to the IPND by a Data Provider.	• MS 027-Missing carriage service provider code • MS 037-Incorrect carriage service provider code
14	Data Provider Code	X (6)	Mandatory. The IPND will not process the record if this field is not populated with a valid value and generate a Mandatory Hard (MH) error		Valid value to be provided by the IPND Manager.	Data Provider Code		The IPND Manager allocates a unique Data Provider code on receipt of an application from a Data Provider. The Data Provider Code field is used to identify the actual provider of the data to the IPND, and should be the same for all records sent by a Data Provider.	• MS 012-Missing Data Provider Code • MS 017-Incorrect Data Provider Code
15	Transaction	N (14)	Mandatory. Note the		This field	Date and time		The transaction date is a	• MS 028-Missing

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
	Date		IPND will process the record if not populated and generate a Mandatory Soft (MS) error		must contain a valid date and time and should be provided in the format (YYYYMMDD HHMMSS)	at which the service record was last changed in the Data Provider's system		14 digit numeric field referring to the date the record was last changed on the Data Provider's system.	transaction date • MS 082-Badly formed transaction date
16	Service Status Date	N (14)	Mandatory. Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error		This field must contain a valid date and time and should be provided in the format (YYYYMMDD HHMMSS)	The service status date is a 14 digit numeric field referring to the date the status of the record last changed on the Data Provider's system.		The Service Status Date may be the same date as the transaction date and is a 14 digit numeric field. If Pending Flag is F the date and time on which the current service status was reached. If Pending Flag is T the date and time on which the pending Service Status Date is expected to be reached. Note if a change is being made to any of the other fields other than Service Status then the Service Status Date should show the date the service was connected. For instance if the Finding Name is changed then the fact that a change has occurred on a certain date would be indicated	• MS 83-Badly formed service status date • MS 29- Missing service status date

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
								by the Transaction Date.	
17	Alternate Address Flag	X (1)	Mandatory. Note the IPND will process the record if not populated and generate a Mandatory Soft (MS) error	U	Valid values are T or F.	T-True F-False		This field is used to flag where the Service Address provided is the location where the service originates (the flag is set to false), or to identify where the Service Address provided may be not be where the service originates (the flag is set to true). Typically this can apply to a PABX or VOIP service.	• 038-Incorrect alternate address flag • 030-Missing alternate address flag
18	Prior Public Number	X (20)*	Optional		Customers prior Public Number	Customer's Prior Public Number		* This field is defined as type X to ensure leading zeros can be entered; however only digits may be used, as per Public Number.	
19	Record Delimiter	1			\n	ASCII 10		Newline	

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
	Trailer record							One Per file	
1	Record Type	X (3)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated.	U	Valid value is TRL				• 237 Unknown footer record type found in upload file
2	File sequence number	N (7)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File error will be generated.		Unique consecutive number for file from file source.	The file sequence number will be sequential and contiguous.		The File Sequence Number is used to uniquely identify each file created within the same File Source Code.	• MF 243-Upload file footer sequence number is null • MF-242 Invalid character (s) found in upload file footer sequence number
3	File Creation End	N (14)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated.		This field must contain a valid date and time and should be provided in the format (YYYYMMDD HHMMSS)	This field contains details of the date and time the creation of the data file was completed.		There is a corresponding field in the file header which details the date and time the creation of the data file commenced. These two fields mark the beginning and end of the creation of the data file on the Data Provider's source system.	• MF 233-Invalid upload file footer create end date format. • MF 234-Upload file footer create end date is null

No	Field Name	Format	Mandatory/Optional	Case	Values	Value Description	AS 4212	Description	Error number and message if field is not populated with data
4	File Record Count	N (7)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated		The file trailer record count is a 7 digit field reflecting the number of transaction records in the file excluding the header and trailer records				• MF 239 Upload file footer record count does not match number of records found in file. • MF 240-Upload file footer record count is null
5	Filler	X (874)	Mandatory. The entire file will be rejected if a valid value is not populated and a Mandatory File (MF) error will be generated		SPACES	ASCII 32		Padding to make all records in file the same length	
6	Record Delimiter	1			\n	ASCII 10		New line	

Please note in addition to the errors described in the table above the IPND will also generate the following errors, which are described in the table below:

Error Number	Error Message
MH 005	Unprintable character in record
MF 201	Incorrect upload filename length
MF 202	Incorrect upload filename prefix
MF 203	Invalid upload filename separator
MF 204	Incorrect upload filename sequence format.
MF 205	Upload filename sequence does not match footer sequence.
MF 206	Upload filename sequence does not match header sequence
MF 208	Upload filename source does not match header source
MF 233	Invalid upload file footer create end date is null
MF 236	Upload file footer contains a negative record count
MF 238	Invalid character(s) found in upload file footer record count
MF 207	Invalid upload file name source
MF 252	Upload file header sequence number does not match footer sequence number
MF 253	Upload file footer is too large
MF 254	Upload file footer is too small
MF 255	Upload file header is too large
MF 256	Upload file header is too small
MF 257	Upload file record is too large
MF 258	Upload file record is too small
MF 259	Unprintable character found in header
MF 260	Unprintable character found in footer

W 041	CDP disconnect attempted
W 043	Warning older transaction date
W 107	Prior Public Number includes leading spaces
W 108	Prior Public Number includes embedded spaces
W 109	Non numeric in Prior Public Number

APPENDIX

B ADDRESS MAPPING

The following tables provide examples of complex addresses and shows the recommended IPND field where each address element should be populated:

Address Type	Airport	Business/Commercial Park	Caravan Park
Address Example:	Warehouse 2, Eagle Drive, Jandakot Airport, 200 Hope Road, Jandakot WA 6164	Suite 10, Coles-Meyer Complex, 380 Frankston Road, Dandenong VIC 3175	Site 10, Outer Road, Paradise Caravan Park, 45-67 Smith Street, Hervey Bay QLD 4655
IPND Address Elements			
Service Building Type	WE	SE	SITE
Service Building 1st Number	2	10	10
Service Building 1st Suffix			
Service Building 2nd Number			
Service Building 2nd Suffix			
Service Building Floor			
Service Building Floor Type			
Service Building Floor Number			
Service Building Floor Number Suffix			
Service Building Property	Jandakot Airport	Coles-Meyer Complex	Paradise Caravan Pk
Service Building Location	Eagle DR		Outer RD
Service Street House			
Service Street House Number 1	200	380	45
Service Street House Number 1 Suffix			
Service Street House Number 2			67
Service Street House Number 2 Suffix			
Service Address Street			
Service Street Name 1	Hope	Frankston	Smith
Service Street Type 1	RD	RD	ST
Service Street Suffix 1			
Service Street Name 2			
Service Street Name Type 2			
Service Street Suffix 2			
Service Address Locality	JANDAKOT	DANDENONG	HERVEY BAY
Service Address State	WA	VIC	QLD
Service Address Postcode	6164	3175	4655

Address Type	Community Development	Corner Address	Educational Institutions
Address Example:	House 5, Pace Road, Heavenly Community Village, Cairns Road, Nimbin NSW 2480	Randwick Campus HP, 350 Anzac Parade Corner Barker Street, Randwick NSW 2031	Office 2, Graphic Arts Building, O'Briens Walk, Swinburne University, 130-150 High Street, Prahran VIC 3181
IPND Address Elements			
Service Building Type	HSE		OFF
Service Building 1st Number	5		2
Service Building 1st Suffix			
Service Building 2nd Number			
Service Building 2nd Suffix			
Service Building Floor			
Service Building Floor Type			
Service Building Floor Number			
Service Building Floor Number Suffix			
Service Building Property	Heavenly Community Village	Randwick Campus HP	Graphic Arts Bldg Swinburne University
Service Building Location	Pace RD		O'Briens WALK
Service Street House			
Service Street House Number 1		350	130
Service Street House Number 1 Suffix			
Service Street House Number 2			150
Service Street House Number 2 Suffix			
Service Address Street			
Service Street Name 1	Cairns	Anzac	High
Service Street Type 1	RD	PDE	ST
Service Street Suffix 1			
Service Street Name 2			
Service Street Name Type 2			
Service Street Suffix 2			
Service Address Locality	NIMBIN	RANDWICK	PRAHRAN
Service Address State	NSW	NSW	VIC
Service Address Postcode	2480	2031	3181

> NOTE: In the case of a corner address, see example above, the address details of the main entrance must be provided.

Address Type	Entertainment /Recreational Park	Hospital	Lot Address (1)
Address Example:	Studio 8, Hollywood Boulevarde, Fox Studios, 470-570 Pacific Highway, Broadbeach, QLD 4218	Suite 16, Level 5, Burnett Building, Park Alley, Northern Private Hospital, 580-780 Plenty Road, Bundoora VIC 3083	Lot 45 SP171338, Pickering Place, Upper Kedron QLD 4055
IPND Address Elements			
Service Building Type	STU	SE	
Service Building 1st Number	8	16	
Service Building 1st Suffix			
Service Building 2nd Number			
Service Building 2nd Suffix			
Service Building Floor			
Service Building Floor Type		L	
Service Building Floor Number		5	
Service Building Floor Number Suffix			
Service Building Property	Fox Studios	Burnett Bldg Northern Private Hospital	
Service Building Location	Hollywood BVD	Park ALLEY	LOT 45 SP171338
Service Street House			
Service Street House Number 1	470	580	
Service Street House Number 1 Suffix			
Service Street House Number 2	570	780	
Service Street House Number 2 Suffix			
Service Address Street			
Service Street Name 1	Pacific	Plenty	Pickering
Service Street Type 1	HWY	RD	PL
Service Street Suffix 1			
Service Street Name 2			
Service Street Name Type 2			
Service Street Suffix 2			
Service Address Locality	BROADBEACH	BUNDOORA	UPPER KEDRON
Service Address State	QLD	VIC	QLD
Service Address Postcode	4218	3083	4055

Address Type	Lot Address (2)	Lot Address (3)	Marina
Address Example:	Peeweena Homestead, Lot 24 D13995, Ridge Road, Mingbool, SA 5291	Section 390 Hundred Mingbool, Peeweena Road, Mingbool, SA 5291	Marine Berth 15, St Kilda Marina, 36-38 Beaconsfield Parade, St Kilda, VIC 3182
IPND Address Elements			
Service Building Type			MB
Service Building 1st Number			15
Service Building 1st Suffix			
Service Building 2nd Number			
Service Building 2nd Suffix			
Service Building Floor			
Service Building Floor Type			
Service Building Floor Number			
Service Building Floor Number Suffix			
Service Building Property	Peeweena Homestead		St Kilda Marina
Service Building Location	LOT 24 D13995	SEC 390 HD MINGBOOL	
Service Street House			
Service Street House Number 1			36
Service Street House Number 1 Suffix			
Service Street House Number 2			38
Service Street House Number 2 Suffix			
Service Address Street			
Service Street Name 1	Ridge	Peeweena	Beaconsfield
Service Street Type 1	RD	RD	PDE
Service Street Suffix 1			
Service Street Name 2			
Service Street Name Type 2			
Service Street Suffix 2			
Service Address Locality	MINGBOOL	MINGBOOL	ST KILDA
Service Address State	SA	SA	VIC
Service Address Postcode	5291	5291	3182

Address Type	Military Base (1)	Military Base (2)	Miscellaneous (1)
Address Example:	Sergeants' Mess, Blamey Road, Simpson Army Barracks, 185 Greensborough Road, Yallambie VIC 3085	Shed 1, Charlesworth Parade, RAAF Williams Laverton Base, Laverton VIC 3028	2A Smith Street South, North Sydney NSW 2060
IPND Address Elements			
Service Building Type		SHED	
Service Building 1st Number		1	
Service Building 1st Suffix			
Service Building 2nd Number			
Service Building 2nd Suffix			
Service Building Floor			
Service Building Floor Type			
Service Building Floor Number			
Service Building Floor Number Suffix			
Service Building Property	Sergeants Mess Simpson Army Barracks	RAAF Williams Laverton Base	
Service Building Location	Blamey RD	Charlesworth PDE	
Service Street House			
Service Street House Number 1	185		2
Service Street House Number 1 Suffix			A
Service Street House Number 2			
Service Street House Number 2 Suffix			
Service Address Street			
Service Street Name 1	Greensborough		Smith
Service Street Type 1	RD		ST
Service Street Suffix 1			S
Service Street Name 2			
Service Street Name Type 2			
Service Street Suffix 2			
Service Address Locality	YALLAMBIE	LAVERTON	NORTH SYDNEY
Service Address State	VIC	VIC	NSW
Service Address Postcode	3085	3028	2060

Address Type	Miscellaneous (2)	National Park	Port (1)
Address Example:	3 Albert Lane, Off Albert Avenue Chatswood NSW 2067	Myall Lakes National Park, Bombah Point, Via Buladelah NSW 2423	Shed 6F, Overseas Passenger Terminal, 42 Victoria Quay Road, Fremantle WA 6160
IPND Address Elements			
Service Building Type			SHED
Service Building 1st Number			6
Service Building 1st Suffix			F
Service Building 2nd Number			
Service Building 2nd Suffix			
Service Building Floor			
Service Building Floor Type			
Service Building Floor Number			
Service Building Floor Number Suffix			
Service Building Property		Myall Lakes National Park	Overseas Passenger Terminal
Service Building Location		Via Bulahdelah	
Service Street House			
Service Street House Number 1	3		42
Service Street House Number 1 Suffix			
Service Street House Number 2			
Service Street House Number 2 Suffix			
Service Address Street			
Service Street Name 1	Albert		Victoria Quay
Service Street Type 1	LANE		RD
Service Street Suffix 1			
Service Street Name 2			
Service Street Name Type 2			
Service Street Suffix 2			
Service Address Locality	CHATSWOOD	BOMBAH POINT	FREMANTLE
Service Address State	NSW	NSW	WA
Service Address Postcode	2067	2423	6160

Address Type	Port (2)	Retirement Village	Resort
Address Example:	Akuna Bay Marina, Marine Berth 23B, Liberator General San Martin Drive, Ku-ring-gai Chase National Park, Akuna Bay NSW 2084	Unit 6, Centre Drive, AP Retirement Village, 45-55 Jones Road, Sandy Bay TAS 7005	Suite 5A, Mediterranean Resort, 200 The Esplanade Burleigh Heads QLD 4220
IPND Address Elements			
Service Building Type	MB	U	SE
Service Building 1st Number	23	6	5
Service Building 1st Suffix	B		A
Service Building 2nd Number			
Service Building 2nd Suffix			
Service Building Floor			
Service Building Floor Type			
Service Building Floor Number			
Service Building Floor Number Suffix			
Service Building Property	Akuna Bay Marina	AP Retirement Village	Mediterranean Resort
Service Building Location	Ku-ring-gai Chase National Pk	Centre DR	
Service Street House			
Service Street House Number 1		45	200
Service Street House Number 1 Suffix			
Service Street House Number 2		55	
Service Street House Number 2 Suffix			
Service Address Street			
Service Street Name 1	Liberator General San	Jones	The Esplanade
Service Street Type 1	DR	RD	
Service Street Suffix 1			
Service Street Name 2	Martin		
Service Street Name Type 2			
Service Street Suffix 2			
Service Address Locality	AKUNA BAY	SANDY BAY	BURLEIGH HEADS
Service Address State	NSW	TAS	QLD
Service Address Postcode	2084	7005	4220

Address Type	Rural Station	Shopping Centre	Sporting Venue
Address Example:	Copper Hills Station 34km East Cadney Park Roadhouse via Oodnadatta SA 5734	Shop 56, Level 2, Tuggeranong Hyperdome, 56-84 Reed Street Tuggeranong ACT 2900	Office 1, Netball Stadium, Second Street Sports Complex, 26-78 Clarence Street Bellerive TAS 7018
IPND Address Elements			
Service Building Type		SHOP	OFF
Service Building 1st Number		56	1
Service Building 1st Suffix			
Service Building 2nd Number			
Service Building 2nd Suffix			
Service Building Floor			
Service Building Floor Type		L	
Service Building Floor Number		2	
Service Building Floor Number Suffix			
Service Building Property	Copper Hills Station	Tuggeranong Hyperdome	Netball Stadium
Service Building Location	34km East of Cadney Park Rdhse		Second St Sports Complex
Service Street House			
Service Street House Number 1		56	26
Service Street House Number 1 Suffix			
Service Street House Number 2		84	78
Service Street House Number 2 Suffix			
Service Address Street			
Service Street Name 1		Reed	Clarence
Service Street Type 1		ST	ST
Service Street Suffix 1			
Service Street Name 2			
Service Street Name Type 2			
Service Street Suffix 2			
Service Address Locality	OODNADATTA	TUGGERANONG	BELLERIVE
Service Address State	SA	ACT	TAS
Service Address Postcode	5734	2900	7018

NOTE: Other examples of street names that do not have a street type include The Corso, Broadway and Rue Montaigne.

Address Type	Townhouse Development
Address Example:	Unit 4, First Avenue, 34-56 Brighton Avenue Glenelg SA 5045
IPND Address Elements	
Service Building Type	U
Service Building 1st Number	4
Service Building 1st Suffix	
Service Building 2nd Number	
Service Building 2nd Suffix	
Service Building Floor	
Service Building Floor Type	
Service Building Floor Number	
Service Building Floor Number Suffix	
Service Building Property	First Avenue
Service Building Location	
Service Street House	
Service Street House Number 1	34
Service Street House Number 1 Suffix	
Service Street House Number 2	56
Service Street House Number 2 Suffix	
Service Address Street	
Service Street Name 1	Brighton
Service Street Type 1	AVE
Service Street Suffix 1	
Service Street Name 2	
Service Street Name Type 2	
Service Street Suffix 2	
Service Address Locality	GLENELG
Service Address State	SA
Service Address Postcode	5045

PARTICIPANTS

The Working Committee that revised the Guideline consisted of the following organisations and their representatives:

Organisation	Membership	Representative
Acxiom	Voting	Jodie Sangster
Australian Communications and Media Authority	Non-voting	Julia Cornwell
Australian Privacy Foundation	Voting	Nigel Waters
Baycorp Advantage	Voting	Matthew Walker
Consumers' Telecommunications Network	Voting	Annie McCall
FCS OnLine	Voting	Margo Fitzgibbon
Hutchison Telecoms	Voting	Brian Currie
Hutchison Telecoms	Non-voting	Alexander R. Osborne
Optus	Voting	Melina Rohan/Tracey Mason
Telstra Corporation	Voting	Michael J. Ryan
Telstra Corporation	Non-voting	Brett Born
Telstra Corporation	Non-voting	Sanjay Prem
Vodafone Network	Voting	Van Le

This Working Committee was chaired by Alexander R. Osborne. Margaret Fleming of Communications Alliance provided project management support.

Communications Alliance was formed in 2006 to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services.

In pursuing its goals, Communications Alliance offers a forum for the industry to make coherent and constructive contributions to policy development and debate.

Communications Alliance seeks to facilitate open, effective and ethical competition between service providers while ensuring efficient, safe operation of networks, the provision of innovative services and the enhancement of consumer outcomes.

It is committed to the achievement of the policy objective of the *Telecommunications Act 1997* - the greatest practicable use of industry self-regulation without imposing undue financial and administrative burdens on industry.