



ACIF G603:2004

AUSTRALIAN COMMUNICATIONS INDUSTRY FORUM

INDUSTRY GUIDELINE

**LOCAL NUMBER PORTABILITY
IT TEST STRATEGY**

Industry Guideline – *Local Number Portability IT Test Strategy*

First published as ACIF G603:2004

ISBN: 1 74000 277 6

©Copyright Australian Communications Industry Forum
PO Box 444, Milsons Point NSW 1565

Disclaimers

1. Notwithstanding anything contained in this Industry Guideline:
 - (a) ACIF disclaims responsibility (including where ACIF or any of its officers, employees, agents or contractors has been negligent) for any direct or indirect loss, damage, claim, or liability any person may incur as a result of any:
 - (i) reliance on or compliance with this Industry Guideline;
 - (ii) inaccuracy or inappropriateness of this Industry Guideline; or
 - (iii) inconsistency of this Industry Guideline with any law; and
 - (b) ACIF disclaims responsibility (including where ACIF or any of its officers, employees, agents or contractors has been negligent) for ensuring compliance by any person with this Industry Guideline.
2. The above disclaimers will not apply to the extent they are inconsistent with any relevant legislation.

Copyright

© Australian Communications Industry Forum Limited 2004

This document is copyright and must not be used except as permitted below or under the Copyright Act 1968. You may reproduce and publish this document in whole or in part for your or your organisation's own personal or internal compliance, educational or non-commercial purposes. You must not alter or amend this document in any way. You must not reproduce or publish this document for commercial gain without the prior written consent of ACIF. Organisations wishing to reproduce or publish this document for commercial gain (i.e. for distribution to subscribers to an information service) may apply to subscribe to the ACIF Publications Subscription Service by contacting the ACIF Business Manager at acif@acif.org.au. If you publish any part of this document for any purpose, you must also publish this copyright notice as part of that publication.

PARTICIPANTS

The Working Committee that developed this Industry Guideline consisted of the following organisations and their representatives:

Organisation	Membership	Representative
AAPT	Non-voting	Skye Fuller
AAPT	Voting	Lisa Grady
AAPT	Non-voting	Lee-Anne Sutton
ACA	Non-voting	Simon Flanagan
ACA	Non-voting	Michael Elsegood
ACCC	Non-voting	Grant Young
ATUG	Voting	John Pack
Comindico	Non-voting	Maree Mayo
CTN	Voting	Teresa Corbin
CTN	Non-voting	Philippa Mansor
Hutchison Telecoms	Voting	Brian Currie
Hutchison Telecoms	Non-voting	Alexander R. Osborne
Optus	Non-voting	Melina Rohan
Optus	Non-voting	Xanthe Corbett-Jones
Optus	Non-voting	Margueritta Wong
Optus	Voting	Michelle Ford
PowerTel	Voting	Paul Teng
PowerTel	Non-voting	Russell Symons
Paradigm.One	Non-voting	Devendra Gupta
Primus	Non-voting	Martin Vella
RSL Com	Non-voting	John Green
Telstra	Voting	Ian Somerville
Telstra	Non-voting	Terry Dyer
Telstra	Non-voting	Greg Craig
TransACT	Non-voting	Uday Lad

This Working Committee was chaired by Alexander R. Osborne. Terry Andersen of ACIF provided project management support.

TABLE OF CONTENTS

1	INTRODUCTION	1
	1.1 Introduction	1
2	SCOPE AND OBJECTIVES	3
	2.1 Scope	3
	2.2 Objectives	3
3	DEFINITIONS	5
	3.1 Definitions.....	5
4	REFERENCES	9
5	TEST SCOPE	11
	5.1 IT Link.....	11
	5.2 Application Layer	11
	5.3 Out of Scope.....	11
6	TEST STRATEGY	15
	6.1 Intercarrier LNP IT Testing	15
	6.2 Bilateral Agreements	15
7	DELIVERABLES	17
8	FEATURES TO BE TESTED	19
	8.1 Testing Modules.....	19
	8.2 Module 0 - Network Interface Testing	19
	8.3 Module 1 to 11 – Business Function Testing	20
	8.4 Module 12 - Network Interface Testing	20
9	ENTRY CRITERIA	21
	9.1 Prerequisites	21
	9.2 Internal Testing	21
10	EXIT CRITERIA	23
11	MIGRATION TO PRODUCTION	25
12	SCHEDULES	27
13	TESTING SCENARIOS	29
14	ROLES AND RESPONSIBILITIES	31

15	TEST MANAGEMENT AND ADMINISTRATION	33
15.1	Task Management	33
15.2	Status Reporting	33
15.3	Reporting Actual Results	33
15.4	Escalation Procedures	33
15.5	Incident Reporting Management Procedures	34
15.6	Definition of Severity Levels	35
15.7	Incident Report Resolution Timeframes	35
15.8	Re-run of Test Cycles	35
15.9	Test Environments	36
15.10	Resourcing	36
<hr/>		
	APPENDIX A	37
	LNP CHECKLIST	37

1 INTRODUCTION

1.1 Introduction

- 1.1.1 The purpose of this document is to provide the basis of the framework for existing Participants implementing new Porting processes and new Participants to undertake successful intercarrier LNP IT testing. This testing applies to all C/CSPs who intend Porting under Local Number Portability (LNP).
- 1.1.2 LNP IT Testing is undertaken on a one to one basis between C/CSPs who intend Porting with each other under Local Number Portability (LNP). The C/CSP should undertake separate LNP IT Testing with each individual C/CSP.
- 1.1.3 The objective is to ensure base level equivalent testing is carried out between all C/CSPs currently involved in LNP activity. The document will make clear what is expected from each C/CSP and what will be considered successful LNP IT Testing.
- 1.1.4 This document should be read in conjunction with the ACIF G613:2004 *Local Number Portability IT Test Plan Parts 1 to 5* Industry Guideline for each category of Porting. Where there is a discrepancy between the ACIF G603:2004 *Local Number Portability IT Test Strategy* Industry Guideline and the ACIF G613:2004 *Local Number Portability IT Test Plan Parts 1 to 5* Industry Guideline, the Test Plan will take precedence.

2 SCOPE AND OBJECTIVES

2.1 Scope

- 2.1.1 The scope of the LNP IT Test Strategy is to document and agree the test components required to successfully complete LNP IT Testing.
- 2.1.2 There are two phases of LNP IT Testing that will be required to be successfully completed in the following order:
 - (a) IT Link Testing; and
 - (b) Application Layer Testing.

NOTE: Application Layer Testing includes the testing of the Ported Local Number Register.

2.2 Objectives

- 2.2.1 The objective of IT Link Testing is to ensure:
 - (a) the connectivity of the two Participants up to and including that the firewall configuration is operational, and
 - (b) the IT Link is ready to support Application Layer Testing.
- 2.2.2 The objective of Application Layer Testing is to ensure:
 - (a) transactions are passed correctly between the Participants;
 - (b) format and content is correct;
 - (c) transactions are sent and processed in the correct sequence;
 - (d) transactions are correctly accepted or rejected; and
 - (e) the PLNR is correctly updated.

3 DEFINITIONS

3.1 Definitions

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

*NOTE: Should a difference occur between definitions listed in the ACIF C540:2003 **Local Number Portability Industry Code** and this document, the Code will take precedence. If terms are not defined in this document, the definitions as per the Code will apply.*

Act

means the *Telecommunications Act 1997*.

Actual Results

means results generated as a product of executed tests.

Application Layer Testing

means the testing performed between two Participants to determine correct operation of the interfaces and passing of correct data.

Bilateral Agreement

means any agreement between two parties.

Business Day

means any day from Monday to Saturday (inclusive) other than a day which is gazetted or otherwise declared or made a National Public Holiday in all States of Australia and the Australian Capital Territory and the Northern Territory, or as otherwise agreed on a bilateral basis between CSPs.

Carriage Service Provider

has the same meaning as in the Act.

Carrier

has the same meaning as in the Act.

C/CSP

has the same meaning as in the Code.

Customer Authorisation

has the same meaning as in the Code.

Donor C/CSP

means the C/CSP to which a Telephone Number has been allocated under the Numbering Plan.

Eligible Party Identification (EPID)

means, for the purposes of LNP, an identification code allocated to a CSP by ACIF as per ACIF G600:2002 *Allocation of Eligible Party Identification Codes*, for the purpose of enacting LNP activity with another CSP.

NOTE: The Eligible Party Identification Code List is maintained on the ACIF website.

Expected Results

means results that should be produced by the system if operating according to the given specifications.

Expiry Notification

has the same meaning as in the Code.

Gaining C/CSP

means the C/CSP to which a Telephone Number has been or is to be Ported.

Gaining C/CSP

means the C/CSP to which a Telephone Number has been or is to be Ported.

Give Back

means the return of a Ported MSN from a Recipient CSP to the Donor CSP in accordance with Section 6.

Give Back Notification

has the same meaning as in the Code.

Incident Report

means a report outlining any incidents raised or noted during testing.

LNP Test Co-ordination Group

means the ACIF sub-committee established to manage all aspects of Application Layer Testing for LNP.

Losing C/CSP

means the C/CSP from which a Telephone number has been or is to be Ported.

National Public Holiday

has the same meaning as in the Code.

Network

means a Carrier's or C/CSP's system, or series of systems, that carries, or is capable of carrying communications by means of guided or unguided electromagnetic energy.

Network Provider

has the same meaning as in the Code.

Numbering Plan

means the Telecommunications Numbering Plan 1997.

Originating Access Service Deliverer

has the same meaning as in the Code.

Participant

means, for the purposes of LNP, those C/CSPs involved in sending or receiving LNP transactions to another C/CSP.

Port

has the same meaning as in the Code.

Ported Local Number Registers

has the same meaning as in the Code.

Regression Test

means the Test to confirm existing functionality in a new release.

Standard Telephone Service

has the same meaning as in the Code.

Standard Time

has the same meaning as in the Code.

Test Case

means a collection of test conditions with specified input data values, expected and actual results.

Test Condition

means a business / Technical / Control requirement that is to be tested.

Test Cycle

means a logical grouping of Test Conditions for administrative and monitoring purposes.

Test Data

means data to support test cases.

Test Documentation

includes test cases, test data, test schedule and expected results.

Test Execution Schedule

means the Schedule of testing activities.

Test Strategy

means the method of testing given software; testing plan of action.

Test Verification

means the process of confirming from expected results and actual results that the system is working according to specifications.

4 REFERENCES

Publication	Title
Industry Codes	
ACIF C569:2001	Unconditioned Local Loop Service - Ordering, Provisioning and Customer Transfer
ACIF C540:2003	Local Number Portability
Industry Guidelines	
ACIF G602:2003	Local Number Portability IT Specifications and Operations Manual Parts 1 to 5
ACIF G613:2004	Local Number Portability IT Test Plan Parts 1 to 5
Industry Documents	
<i>Telecommunications Act 1997</i>	
<i>Telecommunications Numbering Plan 1997</i>	

5 TEST SCOPE

5.1 IT Link Testing

The scope of IT Link Testing includes end to end connectivity (including access links and firewalls) of each C/CSP.

5.2 Application Layer Testing

5.2.1 Non - Functional Application Layer Testing

The testing of the operational aspects of the Participant's systems is included to ensure that the interfacing and technical aspects of the systems have been adequately addressed. The tests will ensure that the:

- (a) security aspects for file transfer are supported as agreed; and
- (b) file transfer mechanisms are in place and provide the required functionality.

5.2.2 Functional Testing

The testing of intercarrier interface functionality will have a number of different aspects. These aspects will include:

- (a) functional testing between Participants covering the ACIF C540:2003 *Local Number Portability* Industry Code and ACIF G602:2003 *Local Number Portability IT Specification and Operations Manual, Parts 1 to 5* Industry Guideline;
- (b) files and transactions are passed correctly between Participants;
- (c) format and content is correct;
- (d) transactions are sent in the correct order;
- (e) transactions are sent in the correct timeframe;
- (f) transactions are correctly accepted;
- (g) functions can handle exception conditions - that is the relevant validation and verification is in place so all errors are detected and reported via the appropriate reject codes as per ACIF G602:2003 *Local Number Portability IT Specification and Operations Manual, Parts 1 to 5* Industry Guideline; and
- (h) updating the PLNR.

The testing of each function will only verify basic error processing and successful execution.

5.3 Out of Scope

The following list describes the LNP IT features that will not be tested. They are not included in LNP IT Testing because the responsibility for it lies solely with each Participant. Where appropriate each Participant will test these features internally:

- Archival of data;
- Activation of Services;
- Call Routing to the C/CSPs networks (ie network testing);
- Security testing;

- Recovery testing;
- Stress/volume testing;
- Performance;
- Maintenance of Ported Local Number Registers;
- Testing with any other system other than the interfacing LNP systems;
- Participant's internal operating procedures; and
- Any other testing not mentioned as being within scope.

5.3.1 Archival of data

Archival of data is not included in LNP IT Testing. Such testing will be performed by each Participant as appropriate.

5.3.2 Activation of Services

Activation of LNP services is not included in LNP IT Testing. Such testing will be performed by each Participant as appropriate.

5.3.3 Call Routing to the Participants' networks

Call Routing to the Participants' networks for LNP is not included in LNP IT Testing. Such testing will be performed by each Participant as appropriate.

5.3.4 Security Testing

Security testing is not included in LNP IT Testing with the exception of security required to properly transmit files between each of the test Participants. Additional security testing will be performed by each Participant as appropriate.

5.3.5 Recovery Testing

Recovery testing is not included in LNP IT Testing with the exception of recoveries required to properly transmit files between each of the test Participants. Additional recovery testing will be performed by each organisation as appropriate.

5.3.6 Stress/Volume Testing

Stress/Volume Testing is not included in the intercarrier LNP IT Testing. Stress/Volume testing will be performed by each Participant as appropriate.

5.3.7 Performance Testing

Performance testing is not included in LNP IT Testing. Due to the need to manually manipulate data, and the absence of actual activation of services, it would not provide a realistic test. Performance testing will be performed by each Participant as appropriate.

5.3.8 Maintenance of Ported Local Number Registers

The maintenance of the Ported Local Number Registers by each Donor C/CSP is not included in LNP IT Testing. Such testing will be performed by each Donor C/CSP as appropriate.

NOTE: The updating of the PLNR as a result of Port processing is included in LNP IT Testing, as part of Application Testing.

5.3.9 Testing with any other system other than the interfacing LNP systems

Testing with any other system other than the interfacing LNP systems is outside the scope of this document.

5.3.10 Participant's internal operating procedures

The testing of Participant's internal operating procedures for LNP is outside the scope of this document.

6 TEST STRATEGY

6.1 Intercarrier LNP IT Testing

- 6.1.1 Existing LNP Participants implementing new Porting processes and new LNP Participants will complete individual LNP IT Testing with each Participant with whom they intend Porting before commencing Porting activity in production.
- 6.1.2 Prior to the commencement of LNP IT Testing each Participant will nominate a Test Co-ordinator. Both Test Co-ordinators will be responsible for facilitating the regular testing status meetings between the Participants, co-ordinating the drafting and tabling of the daily Testing Status Reports and the production of a Test Summary Report at the conclusion of each phase of testing.
- 6.1.3 To ensure adequate testing is performed it is essential for each test scenario to be executed between each Participant. The approach of having a Participant perform each test scenario with the Participants with whom they intend Porting provides the following benefits:
 - (a) ensures that all LNP files can be successfully passed between Participants;
 - (b) ensures consistent interpretation of the ACIF G602:2003 *Local Number Portability IT Specification and Operations Manual, Parts 1 to 5* Industry Guideline across all Participants; and
 - (c) minimises any conflict by providing an industry guideline for LNP IT Testing.
- 6.1.4 Intercarrier LNP IT test plans, cases and data are broken into modules matching the various Porting processes. Participants may utilise one or more of test modules to test the LNP IT interface with other Participants.
- 6.1.5 Testing will assume to be conducted in a “test” environment and not in a production environment for the following reasons:
 - (a) LNP IT Testing is restricted to interface testing.
 - (b) A full end to end test is outside the scope of the LNP IT Test Strategy.
 - (c) Due to the timing requirements of the LNP IT Testing, the generation of the files and transactions is impracticable in a production environment.
 - (d) The need to change system clocks and to repeat the same test multiple times.

6.2 Bilateral Agreements

- 6.2.1 Intercarrier LNP IT Testing will be agreed Bilaterally. It is recommended that the following process be followed in the planning and execution of LNP IT Testing. Agreement and formal signoff on the completeness of each process should be included in the Bilateral Agreement.
- 6.2.2 Participants may agree in Bilateral Agreements that to test Third Party Porting processes, the testing may be restricted to testing the additional transactions required for Donor Carrier transactions as the transactions with the Losing Carrier are identical to those for standard Port process.

7 DELIVERABLES

The following have been identified as deliverables of the LNP Test Co-ordinators:

1. **Documentation**
 - Determine Test Modules
 - Determine Test Execution Schedule
 - Determine Test Conditions
2. **Preparation**
 - Preparation of the Bilateral Agreement which includes the LNP IT Test Plan
 - Preparation of Test Cases
 - Preparation of Test Data
3. **Agreement**
 - Documentation above is complete and signed off
 - Bilateral Agreement is complete and signed off
 - Test Cases are complete & signed off
 - Test Data is Complete and signed off
 - Agreed Timetable for LNP IT Testing
4. **Test Execution**
 - Conduct tests as agreed
 - Daily Test Status Report
 - Weekly Test Summary Report
 - Test Summary Report (final)
5. **Test Exit Criteria**
 - Both parties agree that all test cycles and test cases have been successfully executed and agree to proceed into production.

8 FEATURES TO BE TESTED

8.1 Testing Modules

Testing is broken down into a series of modules, as individual Participants may only want to test using certain Port processes.

TABLE 1
Testing Modules

Process	Component	Module Number
	Network Interface	0
Category A	Donor as Losing C/CSP	1
Category A	Donor as Gaining C/CSP	2
Category A	Donor as neither Losing C/CSP nor Gaining C/CSP	3
Category B	Donor as Losing C/CSP	4
Category B	Donor as Gaining C/CSP	5
Category B	Donor as neither Losing C/CSP nor Gaining C/CSP	6
Category C	Donor as Losing C/CSP	7
Category C	Donor as Gaining C/CSP	8
Category C	Donor as neither Losing C/CSP nor Gaining C/CSP	9
Category D	Donor as Losing C/CSP	10
Giveback		11
	Network Interface	12

- 8.1.1 Each Process/Component combination has a separate module, as the transactions and transaction flows vary significantly for each category. All modules being tested concurrently will be included in a single test plan.
- 8.1.2 The testing for each module includes testing all transactions for that module, both for PNO files, Hot Batch files and the PLNR. It is recommended that reciprocal testing be conducted for each module.
- 8.1.3 These test modules contain the recommended minimum test cases necessary to confirm the correct operation of the interface between the Participants. Participants may agree to vary the testing under Bilateral Agreement.

8.2 Module 0 - Network Interface Testing

The scope of Network Interface Testing is to confirm:

- (a) connectivity through firewalls via the network link to the test environment:
- (b) connectivity to the test PLNR; and

- (c) files can be correctly transferred between Participants prior to commencement of Application Layer Testing.

8.3 Module 1 to 11 – Business Function Testing

- 8.3.1 The modules to be tested will be agreed between Participants in Bilateral Agreements.
- 8.3.2 The testing of each business function has a number of different aspects. These include:
 - (a) transactions are in the correct format;
 - (b) transactions are sent in the correct order;
 - (c) transactions are sent in the correct time frame (as specified in the ACIF G613:2004 *Local Number Portability IT Test Plan Parts 1 to 5* Industry Guideline);
 - (d) transactions are correctly validated; and
 - (e) PLNR is correctly maintained.

8.4 Module 12 - Network Interface Testing

The scope of Network Interface Testing is to confirm:

- (a) connectivity through firewalls via the network link to the production environment;
- (b) connectivity to the production PLNR; and
- (c) files can be correctly transferred between Participants prior to commencement of Porting.

9 ENTRY CRITERIA

9.1 Prerequisites

A prerequisite to the commencement of intercarrier LNP IT Testing is that the IT Link has been successfully established between the two Participants who are undertaking testing and Bilateral Agreements for testing are in place.

9.2 Internal Testing

It is assumed that each Participant will have successfully completed internal testing of LNP before commencing LNP IT Testing with other Participants.

10 EXIT CRITERIA

The following criteria must be satisfied to deem the LNP IT Testing successfully completed:

- (a) All test scenarios must have been executed, results evaluated and approved by each Participant as specified in the ACIF G613:2004 *Local Number Portability IT Test Plan Parts 1 to 5* Industry Guideline;
- (b) There must be no Severity 1 or Severity 2 Incident Reports outstanding;
- (c) Outstanding Severity 3 Incident Reports must be reviewed and evaluated by the Test Coordinators;
- (d) The systems meet the ACIF G603:2003 *Local Number Portability IT Specification and Operations Manual Parts 1 to 5* Industry Guideline; and
- (e) The Test Summary Report has been agreed to by each Participant.

11 MIGRATION TO PRODUCTION

At the conclusion of all LNP IT Testing, each Participant must ensure that their IT systems and processes are capable of moving to production readiness. Date for commencement of Porting between the Participants will be confirmed in accordance with the Bilateral Agreement.

12 SCHEDULES

A schedule for LNP IT Testing should be included in Bilateral Agreements.

The ACIF G613:2004 *Local Number Portability IT Test Plan* Industry Guideline provides indicative test schedule for each Porting process.

13 TESTING SCENARIOS

The specific testing scenarios for testing each module are included in the ACIF G613:2004 *Local Number Portability IT Test Plan Parts 1 to 5* Industry Guideline.

14 ROLES AND RESPONSIBILITIES

The following table represents the roles and responsibilities of each Participant. A Participant may have one or more roles carried out by an individual.

TABLE 2

Roles and Responsibilities

Role	Responsibilities
Test Co-ordinators	<ul style="list-style-type: none"> • Co-ordinate testing to the agreed LNP IT Test Strategy and Test Plan, including Test Scenarios, Test Cases, Test Data, and Test Execution Schedule • Manage the Test Execution Schedule. • Facilitate daily conferences • Produce a daily Test Status Report • Produce a weekly Status Report. • Produce Test Summary Report. • Approve Test Summary Report when test exit criteria are met • Escalate any unresolved severity 1 and 2 incidents to the Escalation Contact. • Discuss Severity 1 and 2 incidents that are unresolved within the required timeframes with the other Participant's Test Co-ordinator • Raises any issues that cannot be resolved or have a critical impact on LNP IT Testing to the Escalation Contact • Manage IR log
Escalation Contact	<p>For each Participant the Escalation Contact represents:</p> <ul style="list-style-type: none"> • An escalation path for Incident Reporting. • Ensure resources are available to support Incident Reporting to the agreed service levels. • Liaise with their Test Co-ordinator and other Participant's Escalation Contacts to resolve LNP IT Testing issues. • Must be readily available during period of testing.

INDUSTRY GUIDELINE

<p>Test Manager</p>	<p>For each Participant the Test Manager represents:</p> <ul style="list-style-type: none"> • Is responsible for all testing deliverables. • Is responsible for the test team and test deliverables to meet test entry criteria. • Manage test execution. • Participate in daily conference call and report progress to Test Co-ordinator. • Produce a daily Test Status Report and distribute to the Test Co-ordinator • Manage the Incident Reporting process. • Identifies need for escalation • Reports Severity 1 and 2 incidents to the other Participant's Test Manager and Test Co-ordinator. • Raise other escalations at the daily conference call. • Report to the Test Co-ordinator.
<p>Test Analyst</p>	<p>For the organisation the Test Analyst represents:</p> <ul style="list-style-type: none"> • Is responsible for preparing Test Data. • Is responsible for test execution. • Identifies need for escalation • Reports Severity 1 and 2 incidents to their Test Manager. • Report to the Test Manager.

15 TEST MANAGEMENT AND ADMINISTRATION

The following Section outlines the processes for LNP IT Testing.

15.1 Task Management

- 15.1.1 All LNP IT Testing will be performed in predetermined time periods as per the Test Execution Schedule. At the conclusion of each day of testing, each Participant will attend a conference call to outline the overall testing results for the tests performed.
- 15.1.2 The LNP IT Testing deliverables will be defined in the ACIF G613:2004 *Local Number Portability IT Test Plan* Industry Guideline, Test Cases and Data and Test Execution Schedule documents. These documents will be used to define the actual test cases to be executed, the timing of the tests, and the expected results.

15.2 Status Reporting

- 15.2.1 Each Participant will produce a daily Test Status Report. The template for this report is in the ACIF G613:2004 *Local Number Portability IT Test Plan Parts 1 to 5* Industry Guideline.
- 15.2.2 At the conclusion of each testing day the Test Manager from all Participants will attend a conference call to discuss the test results.
- 15.2.3 Any Severity 1 and 2 incidents that are not resolved within the required timeframes will be escalated to the Escalation Contact in each Participant.
- 15.2.4 The Test Co-ordinator will also produce a Weekly Test Summary Report.
- 15.2.5 The Test Co-ordinator will also produce a Test Summary Report at the conclusion of testing.

15.3 Reporting Actual Results

- 15.3.1 The test results from each Test Case execution, both pass and fail, are to be recorded by each Participant.
- 15.3.2 The actual results will be compared to the expected results to identify any differences. If the actual results are different from expected results then the test analysts must investigate the cause(s). Any differences that are not explained by human error - eg typing errors, different interpretation of data or similar - must be raised as incidents and the procedure as per Section 15.5 followed.
- 15.3.3 In the case of different interpretation of the ACIF G602:2003 *Local Number Portability IT Specification and Operations Manual, Parts 1 to 5* Industry Guideline, the Test Co-ordinator will need to confirm and agree interpretation then update the relevant documentation.
- 15.3.4 These results will be included in the Daily and Weekly Test Status Reports.
- 15.3.5 The Test Co-ordinator will also produce a LNP Test Summary Report at the conclusion of testing.

15.4 Escalation Procedures

- 15.4.1 Each Participant must nominate an escalation contact who will be advised of any major incidents identified in testing and any jeopardy to schedule. The escalation contacts will co-ordinate with each other to discuss resolution. Escalation

procedures are included in the ACIF G613:2004 *Local Number Portability IT Test Plan Parts 1 to 5* Industry Guideline.

- 15.4.2 The Test Co-ordinator must be advised of any escalations being raised.
- 15.4.3 Further escalation may be required at the discretion of the escalation contacts if agreement cannot be reached by them.

15.5 Incident Reporting Management Procedures

- 15.5.1 The following processes will be used for all Incident Reporting and management:
 - (a) Each Participant will record all errors into an Incident Report so that incidents can be tracked. A sample Incident Report is contained in the ACIF G613:2004 *Local Number Portability IT Test Plan* Industry Guideline.
 - (b) All Incident Reports must be raised within the agreed period of time following the test execution.
 - (c) Incident Reports raised outside the agreed period of time following execution of the test will be reviewed on an exception basis.
 - (d) A unique reference number must be assigned to each Incident Report. (e.g IR-TEL-0001, IR-ORA-0001). The number scheme for each Incident Report is outlined in the ACIF G613:2004 *Local Number Portability IT Test Plan* Industry Guideline.
 - (e) When a Participant identifies an incident during LNP IT Testing, the Test Manager for that Participant will determine the severity of the incident. The Test Manager for that organisation will advise by phone, and follow up with e-mail, all associated information to the other Test Manager and for Severity 1 and 2 incidents.
 - (f) Severity classifications will be reviewed at the daily conference call.
 - (g) Each Test Manager reports to the Test Co-ordinator on a daily basis on all Incident Reports in the Test Status Report.
 - (h) Once a Participant has corrected an incident the Test Manager for that Participant will phone, and follow up with e-mail, all associated information to the other Test Manager, the Test Co-ordinator and (if previously escalated) to the Escalation Contact, for Severity 1 and 2 incidents. Severity 3 incidents will be reported during the daily conference call.
- 15.5.2 Internal distribution of information relating to Incident Forms to relevant people within each Participant will be the responsibility of the Test Manager of each Participant.
- 15.5.3 The following severity levels will apply to incidents during LNP IT Testing:
 - Severity 1: Major failure causes testing to stop, pending problem resolution.
 - Severity 2: Error with no acceptable circumvention. Limited testing continues.
 - Severity 3: Error with acceptable circumvention. Test execution continues.

15.6 Definition of Severity Levels

15.6.1 Severity 1

The application, or an essential part of it, is unavailable and is seriously impacting LNP. No feasible bypass is available for the problem. Feasible bypass means a sensible or reasonable alternative in terms of cost, resources, existing policies, etc.

Listed below are examples of Severity 1.

- Testing cannot continue.
- Essential function not working at all, no feasible bypass.
- Application failed
- Serious logic problem
- Database corruption
- Incorrect layout or format

15.6.2 Severity 2

The application, or an essential part of it, is not working or is working with reduced functionality however it is not seriously impacting LNP because there is a feasible bypass.

Listed below are examples of Severity 2.

- Essential function severely restricted
- Essential function not working, feasible bypass available
- Restricted performance, logic problem

15.6.3 Severity 3

A non-essential function is not working or is working in a very restricted manner. Effect on LNP is minimal.

Listed below are examples of Severity 3.

- Incorrect reject code
- Incorrect naming conventions

15.7 Incident Report Resolution Timeframes

Incident Report resolution timeframes are critical due to the time frame and the nature of the transactions being tested. Detailed turn around times are included in the ACIF G613:2004 *Local Number Portability IT Test Plan Parts 1 to 5* Industry Guideline.

15.8 Re-run of Test Cycles

15.8.1 In case of any incident, alterations of test execution schedule may be required.

The Test Co-ordinators have the responsibility for the maintenance of the test execution schedule.

15.8.2 The strategy for the re-running of a Test Cycle may vary depending on the severity of the problem detected, and will be agreed between Test Co-ordinators. The affected tests may be re-run to assess the differences between the new and old runs, or, a specific test may be re-run to test the problem condition.

- 15.8.3 With the agreement of Test Co-ordinators, any Test Cycle may be re-run if there is sufficient reason to believe the cycle may have been effected by modifications made to address problems in another Test Cycle.

15.9 Test Environments

- 15.9.1 The test environment should replicate the production environment within Participants as closely as possible.
- 15.9.2 The file transfer mechanisms to be used for production should also be used for testing.

15.10 Resourcing

It is the responsibility of each Participant to ensure that sufficient resources are made available to support all the tasks and roles identified for successful LNP IT Testing.

APPENDIX A

LNP CHECKLIST

1. Testing windows will be specified in Bilateral Agreement.
2. Timeframes are calculated from the notification of intent.
3. This table is a guideline to offer assistance to Participants.

Task No	Task	Timeframe
	Generic Tasks	
1	Notify other C/CSPs of intention to participate in LNP	Prior to test start
2	Network Interface Operational	Prior to test start
3	Bilateral Agreement signed	Prior to test start
	IT Test Tasks	
	Start IT Test Negotiation	13 weeks before test start
	Agree IT Test Plan	6 weeks before test start
	Agree Test Schedule	4 weeks before test start
	Agree Test Cases	2 weeks before test start
	Provide Test Data	2 weeks before test start
	Distribute contacts list	1 week before test start
	Establish daily meeting schedules	1 week before test start
4	Module 0 Network Test is the start of testing	1 day
7	Module 1 – 11 Test	6 weeks
8	Module 12 Network Test (if required)	1 day
9	Agree test completion	Completion of last module test

ACIF is an industry owned, resourced and operated company established to implement and manage communications self-regulation within Australia. ACIF's role is to develop and administer technical and operating arrangements to foster a thriving, effective communications industry serving the Australian community through

- the timely delivery of Standards, Codes and other documents to support competition and protect consumers;
- widespread compliance; and
- the provision of facilitation, coordination and implementation services to enable the cooperative resolution of strategic and operational industry issues.

ACIF comprises a Board, an Advisory Assembly, standing Reference Panels, task specific Working Committees, Industry Facilitation/Coordination Groups, Consumer Advisory Bodies and a small Executive. Its members include carriers, carriage/content service providers, business and residential consumer groups, industry associations and individual companies.

The ACIF Standards and Codes development process involves the ACIF Board, Reference Panels, Working Committees and the ACIF Executive. The roles and responsibilities of all these parties and the applicable operating procedures are specified in the ACIF Operating Manual.

These procedures are based upon ACIF's openness, consensus, representation and consultation imperatives and have been designed to ensure that all sectors of Australian society are reasonably able to influence the development of Standards and Codes. Reference Panels and Working Committees must be representative of parties interested in the subject matter of the body of work being undertaken. All draft Codes/Standards are also released for public comment prior to publication to ensure outputs reflect the needs and concerns of all stakeholders.

Care should be taken to ensure that material used is from the current version of the Standard or Industry Code and that it is updated whenever the Standard or Code is amended or revised. The number and date of the Standard or Code should therefore be clearly identified. If in doubt please contact ACIF.



Published by:

**THE AUSTRALIAN COMMUNICATIONS
INDUSTRY FORUM LTD**

Level 9, 32 Walker Street
North Sydney NSW 2060

Correspondence: PO Box 444
Milsons Point NSW 1565

Telephone: (02) 9959 9111
Facsimile: (02) 9954 6136
TTY: (02) 9923 1911

E-mail: acif@acif.org.au

Web Site: <http://www.acif.org.au/>