NICC ND 1412 V1.4.1 (2009-10)

NICC Document

NGN Interconect: PSTN Services Operational Test Manual

NICC Standards Limited

Michael Faraday House, Six Dials Way, Stevenage SG1 2AY

Tel.: +44(0) 20 7036 3636

Registered in England and Wales under number 6613589

NOTICE OF COPYRIGHT AND LIABILITY

© 2009 NICC Standards Limited

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be that printing on NICC printers of the PDF version kept on a specific network drive within the NICC.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other NICC documents is available at:

http://www.nicc.org.uk/nicc-public/publication.htm

If you find errors in the present document, please send your comments to:

mailto:help@niccstandards.org.uk

Copyright

All right, title where and interest in this document are owned by NICC Standards Limited ("NICC") and/or the contributors to the document (unless otherwise indicated that copyright is owned or shared with a third party). Such title and interest is protected by United Kingdom copyright laws and international treaty provisions.

The contents of the document are believed to be accurate at the time of publishing, but no representation or warranty is given as to their accuracy, completeness or correctness. You may freely download, copy, store or distribute this document provided it is not modified in any way and it includes this copyright and liability statement.

You may not modify the contents of this document. You may produce a derived copyright work based on this document provided that you clearly indicate that it was created by yourself and that it was derived from this document and provided further that you ensure that any risk of confusion with this document is avoided.

Liability

Whilst every care has been taken in the preparation and publication of this document, neither NICC, nor any working group, committee, member, director, officer, agent, consultant or adviser of or to, or any person acting on behalf of NICC, nor any member of any such working group or committee, nor the companies, entities or organisations they represent, nor any other person contributing to the contents of this document (together the "Generators") accepts liability for any loss or damage whatsoever which may arise from the use of or reliance on the information contained in this document or from any errors or omissions, typographical or otherwise in the contents.

Nothing in this document constitutes advice. Nor does the transmission, downloading or sending of this document create any contractual relationship. In particular no licence is granted under any intellectual property right (including trade and service mark rights) save for the above licence to download copy, store and distribute this document and to produce derived copyright works.

The liability and responsibility for implementations based on this document rests with the implementer, and not with any of the Generators. If you implement any of the contents of this document, you agree to indemnify and hold harmless each Generator in any jurisdiction against any claims and legal proceedings alleging that the use of the contents by you or on your behalf infringes any legal or other right of any of the Generators or any third party.

None of the Generators accepts any liability whatsoever for any direct, indirect or consequential loss or damage arising in any way from any use of or reliance on the contents of this document for any purpose.

The NICC Standards Web site contains the definitive information on the IPR Policy and Anti-trust Compliance Policy

If you have any comments concerning the accuracy of the contents of this document, please write to:

The Technical Secretary, NICC Standards Ltd.,

Michael Faraday House, Six Dials Way, Stevenage SG1 2AY

Contents

Intelle	ectual Property Rights	5
Forew	word	5
Introd	duction	5
1	Scope	6
2	References	7
2.1	Normative references	
3	Abbreviations	
4	Testing Requirements	9
4.1	Architecture	
4.2	Methodology	
4.3	Suggested Test Scenarios	10
5	Tests	11
5.1	Geographic Calls	
5.1.1	Test List	
5.1.2	Test Procedures	12
5.1.3	Test Result Sheet	
5.2	Directory Enquiries	
5.2.1	Test List.	27
5.2.2	Test Procedures	28
5.2.3	Test Results Sheet	31
5.3	Emergency Service	33
5.3.1	Test List	
5.3.2	Test Procedures	
5.3.3	Test Results Sheet	39
5.4	Operator Services	41
5.4.1	Operator Services	
5.4.2	Test Procedures	
5.4.3	Test Results Sheet	
5.5	Number Translation Service	
5.5.1	Test List	
5.5.2	Test Procedures	
5.5.3	Test Results Sheet	
5.6	Personal Number & Assistant Services	
5.6.1	Test List	
5.6.2	1000 110 0000100	58
5.6.3	Test Result Sheet.	
5.7 5.7.1	Indirect Access Single Stage	
5.7.1	Test Procedure	
5.7.2	Test Results Sheet	
5.7.5 5.8	Indirect Access Two Stage	
5.8.1	Test List	
5.8.2	Test Procdures	
5.8.3	Test Results Sheet	
5.9	Carrier Pre-Select	
5.9.1	Test List	
5.9.2	Test Procedures	
5.9.3	Test Results Sheet	
5.10	Video Calls	
5.10.1		
5.10.3		
5.10.3	Test Result Sheet	115

6	Resources	117
6.1	Standard Message Sequences	117
6.1.1	Message Sequence Categories	117
6.1.2	Message Sequences	
6.2	UK-ISUP Message Library	
6.2.1	Message Library Key	
6.2.2	Message Library	
6.3	SCTP Message Format	
6.4	SIP Message Formats	
6.5	SIP CLI Formats	
6.6	UK-ISUP Basic Service Marks	143
Histor	ry	144

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to NICC.

Pursuant to the <u>NICC IPR Policy</u>, no investigation, including IPR searches, has been carried out by NICC. No guarantee can be given as to the existence of other IPRs which are, or may be, or may become, essential to the present document.

Foreword

This NICC Document (ND) has been produced by NICC TSG Testing Specification Working Group.

Introduction

This document forms an Operational Testing Manual [OTM] template that can be used by CPs as a basis for part of the testing requirements when interconnecting their Next Generation Network [NGN] to another CPs NGN.

It is one of a series of documents (ND1410-14) which form a complete testing process for NGN PSTN interconnect.

1 Scope

It has been agreed in NICC that CPs must take a responsible approach to testing. This can be achieved by ensuring that CPs who want to interconnect to other CPs follow an appropriate process of testing before that interconnect is put into service.

It is recommended that testing should consist of the following stages:

- Validation (prior to any interconnection) ND1413 [8] *
- Integration (of model networks) ND1414 [9] *
 - * Appropriate when an unknown combination of equipment is to be connected
- Operational (of live routes) ND1410, ND1411 [2] and ND1412 [3]

This OTM should be used at the "operational" stage when interconnecting NGNs prior to "ready for service" or as part of the "ready for service" process.

It contains the minimum testing elements needed to test the Services (call types) of an NGN interconnect between CPs (confirming correct operation of the SIP-I signalling and appropriate call treatment, announcements and terminations). It should be read in conjunction with the other OTMs, ND1410 [2] and ND1411 [3] to define a complete set of tests for that interconnect.

It should not be considered to be a complete set of tests that meet any particular CPs exact testing requirement and there may be tests which are unsuitable to particular connection. Consequently, CPs should view this OTM as a template from which their own test requirements should be designed by adding, removing or modifying tests as appropriate provided they are agreed with the other CP.

2 References

For the particular version of a document applicable to this release see ND1610 [1].

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

2.1 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

[1]	ND1610	Next Generation Networks, Release Definition
[2]	ND1410	UK Interconnect - PSTN Transport Operational Testing Manual
[3]	ND1411	UK Interconnect - PSTN Signalling Operational Testing Manual
[4]	ND1612	Generic IP Connectivity for PSTN/ISDN Service between UK Next
		Generation Networks
[5]	ND1017	Interworking between Session Initiation Protocol (SIP) and UK ISDN
		User Part (UK-ISUP)
[6]	ND1613	Management of NGN Interconnect: Transport Connectivity Layer
[7]	ND1701	Recommended Standard for the UK National Transmission Plan
[8]	ND1413	UK Interconnect - PSTN Validation Testing Manual
[9]	ND1414	UK Interconnect - PSTN Integration Testing Manual

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ACK Acknowledgement

APM Application Transport Mechanism

BGW Border Gateway
CHC Call Handling Centre
CPS Carrier Pre-Selection
CP Communication Provider
CIM Clear Indication Message

CLI Call Line Identity
DEL Direct Exchange Line

DPNSS Digital Private Network Services Signalling System

EET Equipment Engaged Tone

IA Indirect Access

ICMP Internet Control Message Protocol ISDN Integrated Services Digital Network ISRM Initial Service Request Message

MOB Mobile

NGN Next Generation Network

NN Network Number

NTE Network Terminating Equipment

OLI Originating Line Identity
OTM Operational Testing Manual

PA Public Address
PN Presentation Number
PPP Point To Point Protocol

PSTN Public Switched Telephony Network

RBWF Ring Back When Free

RLC Release Confirmation Message RTCP Real Time Control Protocol SAM Subsequent Address Message TLI Terminating Line Identity VLAN Virtual Local Area Network

4 Testing Requirements

4.1 Architecture

Within this document, reference is made to functions and interfaces. These functions and interfaces are described in detail in ND1612 [4]. Reference should be made to "Figure 1: Functional Architecture for PSTN / ISDN Generic Connectivity".

Where a different architecture is used, test procedure should be adapted as appropriate.

4.2 Methodology

Each applicable test case should be completed by each CP.

Test results sheets should be retained locally in line with normal document retention guidance.

Where any test does not produce acceptable responses, the reasons should be investigated, a remedy attempted and the test repeated. The number of times the test is repeated and reasons why should be noted.

If the above process does not produce acceptable responses testing officers should follow appropriate escalation procedures to the relevant support groups and commercial teams.

If an immediate resolution can not be found, a time limited waiver should be agreed between the parties to allow the testing to continue, and the interconnect to be placed in service (provided that the issue is not service affecting).

Note that there may be significant differences between forward and backward releases depending on how networks are configured. When CPs design their own testing requirements based on these templates care should be taken when considering the forward/backward sequences detailed in End User Release sequence T1 in section 6.1.2. CPs may wish to include additional tests of their own design to look at this specific issue.

Reference should be made to ND1017 [5] for all tests.

4.3 Suggested Test Scenarios

The following table defines the test scenario definitions which may used in test operational scheduling. All of the indicated tests should be completed and passed for the given scenario.

Scen- ario		Definition					
Α	1	First traffic route between CPs with <u>unknown</u> equipment (at either end)					
	2	First traffic route between CPs with known equipment (at either end)					
В		All subsequent new traffic routes after either Scenario A1 or A2 has been completed					
C	1	Additional service type on first existing route where either CP switch has an <u>unknown</u> build (for that service type)					
С	2	Additional service type on first existing route where either CP switch has a known build (for that service type)					

5 Tests

5.1 Geographic Calls

5.1.1 Test List

Each applicable test case should be completed by each CP.

	Service Type: Geographic Calls						
	Test Description		Sc		enario		
Test	Test Description		A	В	(
		1	2		1	2	
1001	ISDN Data						
1002	ISDN Data - Incompatible Destination						
1003	ISDN Data - Diverted Mobile						
1004	ISDN Speech					•	
1005	Successful Call						
1006	Calling Line Identity Unavailable						
1007	Presentation Number						
1008	Calling Line Identity Withheld						
1009	Anonymous Call Reject						
1010	Incomplete Destination Number					•	
1011	Hookflash, Suspend / Resume & Called Party Hold Time Out						
1012	Called Party Answer Time Out				-		
1013	Fixed - Busy & Out of Order					-	
1014	Mobile - Busy, Unreachable & Switched Off					•	
1015	Fixed - Spare Number & Incoming Calls Barred					-	
1016	Call Forward Unconditional						
1017	Call Forward on No Reply					•	
1018	Malicious Call Identification					•	
1019	Partial Calling Line Identity	•					
1020	No Customer Premises Equipment Connected	•					
1021	Ring Back When Free					-	
	End of Geographic Calls Tests						

5.1.2 Test Procedures

Tests procedures commence on next page.

1001		ISDN Data	GEO					
	Test Procedure							
1 2 3 4	 2 Answer ('Auto Answer' where applicable) 3 Forward and backward release all calls Confirm that the 'Presentation Number' / 'Connected Line Number' are displayed 							
	Expected Results							
Ме	Message Sequence Label(s) S6 T1							

1002	IS	SDN Data - In	compatib	e Destinatio	n	GEO			
	<u>Test Procedure</u>								
2 Co	2 Confirm call rejection (& called party's CPE does not ring)								
Expected Results									
Messa	e Sequence Label(s)	S 3	U4						

1003		ISDN Da	DN Data - Diverted Mobile						
	<u>Test Procedure</u>								
1 2 3	2 Answer (Auto Answer)								
4	Cor	firm that the pres	entation nun	nber is displa	ayed				
Expected Results									
Message Sequence Label(s)			S6		T1				

1004		ISDN Speech						
	Test Procedure							
1	1 From an ISDN Terminal make speech calls to an appropriate CPE							
2	Conf	irm the call is of acceptable quality						
3	Forw	ard and backward release the calls						
4	Rep	eat the test, but using 3.1khz mode						
	Expected Results							
Mes	Message Sequence Label(s) S7 P1 T1							

1005		Successful Call			GEO			
	Test Procedure							
2 Ans 3 For	3 Forward and backward release the calls							
Expected Results								
Message	Sequence Label(s)	S4		P1	T1			

1006		Calling Lin	ling Line Identity Unavailable				GEO	
	<u>Test Procedure</u>							
1	Make data changes so that calls are marked 'Unavailable'							
2	2 Make speech calls							
3	Ans	swer						
4	For	ward and backwa	ırd release tl	ne calls				
5	Cor	nfirm that the num	nber is show	n as 'Unavail	able' to the	calle	d party	
6	Cor	firm that N FWD	CL I A=0 (B	locking Not A	vailable to	Calle	er)	
	Expected Results							
Mes	Message Sequence Label(s) S4 P1 T1							

10	1007 Presentation Number								
	<u>Test Procedure</u>								
1	Set up an appropriate 'Presentation Number' on a DEL								
2	2 Make speech calls								
3	Ans	wer							
4	For	ward and backwa	ard release t	he calls					
5	Cor	firm that the pres	sentation nu	mber is displa	yed				
Expected Results									
Mes	Message Sequence Label(s) S4 P1 T1								

100	1008 Calling Line Identity Withheld						
	Test Procedure						
2	Co	ke speech calls voor that the call ward and backward and	ing identity	is restricted to		party	
	Expected Results						
Mess	age :	Sequence Label(s)	S 4		P1	T1	

1009	9 Anonymous Call Reject						
		I	est Procedure				
2 Ma 3 Co 4 Co	able the terminatin ke a speech call nfirm that that the nfirm that a suitabl it for call to backw	called party' le announce	s CPE does no	t ring			
	Expected Results						
Message	Sequence Label(s)	S4		Т	2f		

1010	1010 Incomplete Destination Number					
	Test Procedure					
2 Co	ke a speech call on the spect of the spect o	opriate anno	ouncement is		r	
	Expected Results					
Message	Sequence Label(s)	S 3	U5			

10	1011 Hookflash, Suspend / Resume & Called Party Hold Time Out GEO						GEO	
	Test Procedure							
1	Ма	ke a speech call						
2	Ans	swer						
3	Cle	ar and re-answer	from the cal	led party				
3	Co	nfirm two way spe	ech is possi	ble				
4	Cle	ar the call from th	ne called part	:y				
5		it for called party ease the call befo		`	•	ating network ma	ay	
	Expected Results							
Mes	sage	Sequence Label(s)	S4		P1 + P2	T2d		

101	2		Called Pa	arty Answer T	ime Out	GEO
	Test Procedure					
1		ke a speech call				
2		not answer it for the called pa	arty answer	timer to mature	e (N.B., the terminating net	work may
3		ase the call befo	•		` .	,
			<u>E</u>	xpected Result	<u>s</u>	
Mess	age \$	Sequence Label(s)	S 4		T2c	

10	Fixed - Busy (Calls Not Forwarded) & Out of Order GEO						
			Test I	Procedure –	Busy		
1	Ма	ke speech calls	to a 'Busy' DE	L			
2	Co	nfirm that an app	propriate tone	or announce	ement is hea	ard by the calling	party
3	For	ward and backw	ard (let timer	run) release	the calls		
			<u>Ex</u>	pected Resu	<u>ılts</u>		
Mes	sage	Sequence Label(s)	S 3	U1			
			Test Prod	cedure – Ou	t of Order		
1	Ма	ke speech calls	to an 'Out of C	Order' DEL			
2	Co	nfirm that an app	propriate tone	or announce	ement is hea	ard by the calling	party
3	3 Forward and backward (let timer run) release the calls						
	Expected Results						
Mes	sage	Sequence Label(s)	S 3	U2			

1014	Mol	oile - Busy, Ur	reachable	& Switched C	Off	GEO
		Test P	Procedure –	Busy		
1 1	lake speech calls	to a 'Busy' mol	bile (calls n	ot forwarded)		
	Confirm that an app	•			by the calling	party
3 F	orward and backv	ard (let timer r	un) release	the calls		
		<u>Exp</u>	pected Resu	<u>ılts</u>		
Messag	ge Sequence Label(s)	S 3	U1			
		Test Proc	edure – Un	reachable		
1 fo	Make a speech call orwarded) Confirm that an app Vait for Mobile net	oropriate tone o	or announc		`	
		Exp	pected Resu	<u>ılts</u>		
Messag	ge Sequence Label(s)	S4			T2a	
		Test Proc	edure – Sw	itched Off		
2 (2 Confirm that an appropriate tone or announcement is heard by the calling party					
	Expected Results					
Messag	ge Sequence Label(s)	S4			T2a	

101	015 Fixed - Spare Number & Incoming Calls Barred GEO						
			Test Proce	edure – Spa	re Number		
1	Mal	ke speech calls	to a DEL whic	h has been	made 'Spare	,	
2	Cor	nfirm that an app	ropriate anno	uncement o	r tone is hear	⁻ d	
3	For	ward and backw	ard (let timer	run) release	the calls		
			<u>Ex</u>	pected Resu	<u>ılts</u>		
Mess	sage \$	Sequence Label(s)	S 3	U3			
			Test Procedur	e – Incomin	g Calls Barre	 <u>d</u>	
1	Mal	ke speech calls	to a DEL with	'Incoming C	alls Barred's	set	
2		nfirm that an app		•			
3							
	Expected Results						
Mess	sage \$	Sequence Label(s)	S 3	U6			

1016	1016 Call Forwarding Unconditional					
	Test Procedure					
2 An	1 Make speech calls to a DEL/Mob that has ALL calls forwarded to a DEL2 Answer					
3 Fo	ward and backwa	ard release th	ne calls			
	Expected Results					
Message	Sequence Label(s)	S4		P1	T1	

1017	017 Call Forward on No Reply					
	Test Procedure					
1 N	Make speech calls to a DEL/MOB that has calls forwarded on no reply to	a DEL				
2 /	Answer					
3 F	Forward and backward release the calls					
	Expected Results					
Messa	ge Sequence Label(s) S4 P1 T1					

101	8	Malicious Call Identification GEO						
	<u>Test Procedure</u>							
1	U	sing a destination line with MCI or similar set, make a speech call						
2	C	onfirm that the 'hold request' indicator is set in the ACM						
3	Ar	nswer & invoke MCI on the called party's CPE						
4	At	tempt to clear the call from the calling party						
5	lf [•]	the call remains held, manually release the call						
6	C	onfirm that the calling party's details have been retained by the destina	tion CP					
	Expected Results							
Messa	Message Sequence Label(s) S4 M2							

10	1019 Partial Calling Line Identity		GEO				
	Test Procedure						
1 2 3	2 Answer						
4		nfirm that a Partial CLI is present in message but the call is marked 'Unddisplay purposes	available'				
	Expected Results						
Mes	sage	Sequence Label(s) S4 P1 T1					

1020	No Cu	stomer Prer	mises Equipr	nent Connected	GEO				
		<u>T</u>	est Procedure	1					
2 Co	 1 Make ISDN speech call attempts to a line without any CPE connected 2 Confirm an appropriate announcement is heard 3 Forward and backward (let timer run) release the calls 								
	Expected Results								
Message	Sequence Label(s)	S4		T2e					

102	1 Ring Back When Free		ВТ							
	Test Procedure									
1	Make the terminating line busy (1 st call)									
2	2 Make a speech call to the terminating number (2 nd call)									
3	When busy tone is heard, key the appropriate number to start the ring back process									
4	Clear the 2 nd call, then clear the 1 st call									
5	When the alerting tone is given to the originating number, pick up a ringing tone is heard and the destination line starts to ring	nd con	nfirm that							
6	Answer the terminating line and confirm bothway speech is availab	le								
7	Forward release the call									
	Expected Results									
Messa	age Sequence Label(s)		M1							

5.1.3 Test Result Sheet

Results sheet is on next page.

							F	Res	ults Sheet:	Geographic Calls
			Cor	nplet	ed		Failed	d		
Test	Tested? #	Direction*	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Failure	
1001		>								
1002		^								
1003		>								
1004		^ V								
1005		^								
1006		> \								
1007		>								
1008		^								
1009		^								
1010		^								
1011		>								
		< >								
1012		< >								
1013 * > Denote	s Fror	<	A· < De	enotes	From C	PR f	f thie	test w	as in the scenario under test, please tick if not please put N/A.	
2 2011016	2.101	5. /	., . DC						Example Control Control Product Control (10) Product Part (10) F	Contd

							F	les	ults Sheet: Geographic Calls (Contd)	
			Cor	nplet	ed		Failed	d		
Test	Tested? #	Direction*	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Failure	
1014		>								
1014		<								
1015		>								
.0.0		<								
1016		>								
		<								
1017		>								
		<								
1018		>								
		<								
1019		>								
		<								
1020		>								
		<								
1021		>								
		<								
* > Denote	* > Denotes From CPA; < Denotes From CPB # If this test was in the scenario under test, please tick if not please put N/A.									
End Of Geographic Calls Result Sheet										

5.2 Directory Enquiries

5.2.1 Test List

	Service Type:	irec	rectory Enquiries					
			So	enar	io			
Test	Test Description	A B C						
		1	2	D	1	2		
1101	Successful Call		-		-			
1102	Service Busy / Unavailable				-			
1103	Called Party Answer Time Out		•		-			
1104	Extended Call				-			
	End o	Direc	Directory Enquiries Tests					

5.2.2 Test Procedures

Tests commence on next page.

110	01	Successful Call	DQ							
		Test Procedure								
1	1 Make a speech call to the appropriate 118XXX service									
2	2 If a NID is suffixed, confirm that it is of the correct content & format									
3	Confirm with the assistant that appropriate information is presented for the type of service									
4	Asl	k the assistant to confirm that the CLI and if applicable the PN are disp	layed							
5	Asl	k the assistant to release the call and confirm the release sequence is	acceptable							
	Expected Results									
Mes	Message Sequence Label(s) S5 T1									

1102		Service E	Busy / Unav	/ailable		DQ				
		Test Proce	edure – Ser	vice Busy						
2 Ma	2 Make a speech call to the appropriate 118XXX service									
	Expected Results									
Message	Sequence Label(s)	S 3	U1							
		Test Prod	cedure – Un	available						
1 Wh	ere appropriate to	o do so, make	e the CHC ເ	ınavailable						
	ke a speech call t									
3 Co	nfirm that the rele	ase sequence	e is accepta	ıble						
	Expected Results									
Message	Sequence Label(s)	S 3	U7	_	J					

1103		Called Par	rty Answer Time Out		DQ					
		<u>T</u>	est Procedure							
2 Co										
	Expected Results									
Message	Sequence Label(s)	S 5		T2c						

1104		Ex	tended Call			DQ			
		<u>Te</u>	est Procedur	<u>e</u>					
2 As									
	Expected Results								
Message	Sequence Label(s)	S 5		P1	T1				

5.2.3 Test Results Sheet

Tests commence on next page.

								esults Sheet:	Directory Enquiries
		Cor	nplete	ed		Failed	ł		
Test	Direction*	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Failure	
1101	>								
1101	<								
1102	^								
1102	<								
1103	^								
1103	٧								
1104	^								
1104	<								
* > Denote	s Fron	n CPA	< Den	otes Fi	rom CI	РВ			
								End Of Dire	ectory Enquiries Result Sheet

5.3 Emergency Service

5.3.1 Test List

	Service Type:	mer	mergency Service					
			Sc	enai	rio			
Test	Test Description		Α	В	(C		
		1	2	В	1	2		
1201	Fixed – Successful Call							
1202	Mobile – Successful Call				•	•		
1203	Last Party Release				•	-		
1204	Alternative Routing							
1205	Fixed – Permanent Call Barring Indicator							
	End of Emergency Service Tests							

5.3.2 Test Procedures

Results sheet is on next page.

12	01		Fixed -	Successfu	ıl Call		ES		
			<u>Te</u>	est Procedu	<u>re</u>				
1	Ма	ke a speech call	by dialling 999	9/112					
2	2 Confirm that the Calling Party Category (CPC) = 11 (Sub With Priority)								
3	3 Confirm that the destination digits = 999/112 + II Digits								
4	4 Confirm with the Call Handling Centre (CHC) assistant that the correct II digits are displayed								
5	Coi	nfirm with the ass	sistant that the	NN and Pl	Nare displaye	ed			
6	Ask	the assistant to	release the ca	all					
	Expected Results								
Message Sequence Label(s) S5 T1									

1202		Mobile – Successful Call				ES	
	Test Procedure						
1	1 Make a speech call by dialling 999/112						
2	2 Confirm that the Calling Party Category (CPC) =11 (Sub With Priority)						
3	Confirm that the destination digits = 999/112 + II Digits + Zone Code						
4	Confirm with the assistant that the correct II digits and zone code are displayed						
5	Confirm with the assistant that the NN and PN are displayed						
6	Ask the assistant to release the call						
Expected Results							
Message Sequence Label(s)		Sequence Label(s)	S 5		T1		

120	01		Fixed -	- Successfu	ıl Call		ES	
	Test Procedure							
1	1 Make a speech call by dialling 999/112							
2	2 Confirm that the Calling Party Category (CPC) = 11 (Sub With Priority)							
3	Confirm that the destination digits = 999/112 + II Digits							
4	Confirm with the Call Handling Centre (CHC) assistant that the correct II digits are displayed							
5	5 Confirm with the assistant that the NN and PN are displayed							
6	Ask the assistant to release the call							
Expected Results								
Mes	Message Sequence Label(s)					T1		

120	02	Mobile – Successful Call	ES				
<u>Test Procedure</u>							
1	1 Make a speech call by dialling 999/112						
2	Confirm that the Calling Party Category (CPC) =11 (Sub With Priority)						
3	Confirm that the destination digits = 999/112 + II Digits + Zone Code						
4	Confirm with the assistant that the correct II digits and zone code are displayed						
5	Confirm with the assistant that the NN and PN are displayed						
6	Ask the assistant to release the call						
Expected Results							
Message Sequence Label(s) S5 T1							

12	03		Last Party Re	st Party Release					
	Test Procedure								
1 2 3 4 5	Wh ans Cle Cor rele	ke a speech call by dialen the CHC assistant awer the call ar the call after that data settings asing answer the call	answers tell them	·	·				
6		the assistant to releas							
7	Cor	firm that the call is rele	eased normally						
	Expected Results								
Mes	sage	Sequence Label(s)	S5	P1+P2	T1				

12	04	Alternative Routing							
	<u>Test Procedure</u>								
1	1 Busy all circuits on the first available emergency service traffic route								
2	2 Make a call by dialling 999/112								
3	Cor	nfirm that the calls mature via an alternative route							
4	Rep	peat for all traffic routes							
	Expected Results								
Mes	sage	Sequence Label(s) S5 P1 T1							

1200	6	Fix	ed - Permar	nent Call Ba	rring Indicat	or	ES			
<u>Test Procedure</u>										
3	When the assistant answers confirm that the call is marked as 'Outgoing Calls Barred'									
	Expected Results									
Messa	Message Sequence Label(s) S5 P1 T1									

5.3.3 Test Results Sheet

							Results Sheet:	Emergency Service
	Co	mple	mpleted Failed		d			
Test	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Failure	
1201								
1202								
1203								
1204								
1205								
							End Of Em	ergency Service Result Sheet

5.4 Operator Services

5.4.1 Operator Services

	Service Type:	(Operator Services							
				Scenario)					
Test	Test Description		4	B	(C				
		1	2	В	1	2				
1301	Successful Call (100/155)	-		-	•					
1302	Last Party Release (100/155)	•	-		•					
1303	Permanent Call Barring Indicator (100/155)	•			•					
1304	Extending Call (100)									
1306	Blind & Disabled Assistance (195)	-	-	-						
	End of Operator Services Tests									

5.4.2 Test Procedures

1301	Successful Call (100/155)	os								
<u>Test Procedure</u>										
2 Asl	- The state of the									
	Expected Results									
Message	Sequence Label(s) S5 P1 T1									

1302	2	Last Party	y Release (1	Release (100/155)					
	<u>Test Procedure</u>								
1 2 3 4	Make a speech ca Inform the assistar Clear & re-answer Ask the assistant t	nt that you will the call	be attemption	ng a 'clear an	d re-answer' te	st			
	Expected Results								
Messa	ge Sequence Label(s)	S 5		P1	T1				

130)3	Permanent Call Barring Indicator (100/155)							
1 2 3 4	Mal Wh Bar	the line so that one of the context	outgoing calls by dialling 10 answers con	00 or 155 firm that the	_	d as 'Outgoing (Calls		
	Expected Results								
Mess	sage S	Sequence Label(s)	S 5		P1	T1			

1304	Extending Call (100)									
	<u>Test Procedure</u>									
2	1 Make a speech call to 1002 Ask the assistant to extend the call to a geographic number									
3	Backward release the call									
	Expected Results									
Messag	e Sequence Label(s) S5 P1 T1									

130	5		Blind & Dis	abled Assis	os					
	<u>Test Procedure</u>									
1 2	 Make a speech call to 195 When the assistant answers confirm that the correct II digits, NN and PN are displayed 									
3	As	sk the assistant	to release the	e call						
	Expected Results									
Message Sequence Label(s) S5 P1 T1										

5.4.3 Test Results Sheet

							Results Sheet:	Operator Services
	Co	mple	ted	I	Failed			
Test	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Failure	
1301								
1302								
1303								
1304								
1305								
					•	•	End Of Ope	rator Services Result Sheet

5.5 Number Translation Service

5.5.1 Test List

	Service Type: Number	r Trans	slatio	on S	erv	ice		
		Scenario						
Test	Test Description		Α	В	(
		1	2	נ	1	2		
1401	ISDN Data							
1402	ISDN Speech				•			
1403	Successful Call (Charge Indicator Check)							
1404	Calling Line Identity Unavailable							
1405	Calling Line Identity Withheld				•			
1406	Presentation Number							
1407	Hookflash, Suspend / Resume & Called Party Hold Time Out				-			
1408	Called Party Answer Time Out							
1409	Busy & Out of Order							
1410	Spare Number & Incoming Calls Barred				-			
1411	Malicious Call Identification							
1412	Incomplete Destination Number							
End of Number Translation Service Tests								

5.5.2 Test Procedures

1401		ISDN Data					
	Test Procedure						
1	M	ake a data call via the CPs NTS service					
2	C	onfirm that the presentation number is displayed					
3	C	onfirm that the connected line number is displayed					
4	Ar	nswer (Auto Answer)					
5	Fo	orward release the call					
	Expected Results						
Mess	age	Sequence Label(s) S6 T1					

1402	ISDN Speech				
	Test Procedure				
1 2 3	_ / 1.151/61				
	Expected Results				
Messag	Message Sequence Label(s) S7 P1 T1				

140	3 Successful Call (Charge Indicator Check) NTS					
	Test Procedure					
	Free To Caller Service (where supported)					
1	Make a speech call via the CPs 'Free to Caller' NTS service					
2	Confirm that the address complete message BCI charge indicator is set to "charge"					
3	Confirm that the network number is displayed to the called party					
4	Answer the call					
5	Confirm that when the answer message contains BCI, that the charge indicator is set to "charge"					
6	Forward release the call					
	Chargeable To Caller Service					
1	Make a speech call via the CPs 'Chargeable to Caller' NTS service					
2	Confirm that the address complete message BCI charge indicator is set to "charge"					
3	Confirm that the network number is displayed to the called party					
4	Answer the call					
5	5 Confirm that when the answer message contains BCI, that the charge indicator is set to "charge"					
6	Forward release the call					
	Expected Results					
Messa	Message Sequence Label(s) \$4 P1 T1					

1404	Calling Line Identity Unavailable	NTS		
	<u>Test Procedure</u>			
1	Make data changes so that call will be marked as "Unavailable"			
2	Make a speech call via the CPs NTS service			
3 (Confirm correct transit of the "Blocking Not Available" field			
4 (Confirm that the calling number is shown as "Unavailable" to the called pa	arty		
5	nswer			
6	orward release the call			
Expected Results				
Messag	e Sequence Label(s) S4 P1 T1			

1405		Calling Li	ne Identity	Withheld		NTS
	Test Procedure					
2 (lake a speech call onfirm that the ca orward release the	lling identity is		•	J	ity
	Expected Results					
Message	Sequence Label(s)	S4		P1	T1	

140	6	Presentation Number	NTS		
	<u>Test Procedure</u>				
1	M	ake data changes to provide a presentation number on the calling line			
2	M	ake a speech call via the CPs NTS service			
3	C	onfirm that the presentation number is available to the called party			
4	Aı	nswer			
5	Fo	orward release the call			
	Expected Results				
Mess	age	Sequence Label(s) S4 P1 T1			

140	7	Hookflash, S	uspend / Res	sume & Call	ed Party Ho	ld Time Out	NTS
	Test Procedure						
1	M	ake a speech cal	I via the CPs	NTS service			
2	Ar	nswer					
3	CI	ear and re-answe	er (This action	may not be	possible with	n some ISDN N	TEs)
4	CI	ear the call from	the called par	ty			
5	W	ait for called part	y hold timer to	mature. Ca	use indicator	· = 16	
	Expected Results						
Mess	age :	Sequence Label(s)	S4		P1 P2	T2d	

140	8	Called Party Answer Time Out	NTS		
	Test Procedure				
1	Ma	ake a speech call via the CPs NTS service			
2	Do	not answer			
3	W	ait for the called party answer timer to mature. Cause indicator = 19			
	Expected Results				
Mess	age (Sequence Label(s) S4 T2c			

1409	Bus	y (Calls Not F	orwarded)	& Out of O	rder	NTS
		Test F	Procedure -	Busy		
	ake a speech cal onfirm that an app	-				g party
		Exp	pected Resu	<u>ılts</u>		
Message	Sequence Label(s)	S 3	U1			
		Test Proc	edure - Out	Of Order		
1 M	ake a speech cal	I to an out of o	order line vi	a the CPs N	TS service	
2 C	onfirm that an app	oropriate tone	or announ	cement is he	ard by the calling	g party
Expected Results						
Message	Message Sequence Label(s) S3 U2					

1410	1410 Spare Number & Incoming Calls Barred				
	Test Procedure - Spare Number				
1	Using a destination line marked 'spare', make a speech call via the CP NTS service	6			
2	Confirm that an appropriate tone or announcement is heard by the calling p	arty			
	Expected Results				
Messaç	ge Sequence Label(s) S3 U3				
	Test Procedure - Incoming Calls Barred				
	Using a destination line with 'Incoming Calls Barred', make a speech call via CP NTS service	a the			
2	Make a speech call				
3	Confirm that an appropriate tone or announcement is heard by the calling p	arty			
	Expected Results				
Messag	ge Sequence Label(s) S3 U6				

1411		Malicious Call Identification	NTS			
	Test Procedure					
1	Using a destination line with MCI or similar set, make a speech call via the CPs NTS service					
2	C	onfirm that the 'hold request' indicator is set in the ACM				
3	Ar	nswer & invoke MCI (or equivalent) on the called party's CPE				
4	At	tempt to clear the call from the calling party				
5	lf [•]	the call remains held, manually release the call				
6	C	onfirm that the calling party's details have been stored by the termination	ng CP			
	Expected Results					
Mess	age :	Sequence Label(s) \$4	M2			

1412	Incomplete Destination Number					
	Test Procedure					
1	 Make a speech call via the CPs NTS service but omitting the last digit of the called party's number Confirm call releases to correct announcement 					
3	Forward release the	e call				
	Expected Results					
Messag	e Sequence Label(s)	S 3	U5			

5.5.3 Test Results Sheet

							R	esults	Sheet: Number Translation Service				
		Con	nplete	ed			Failed	I					
Test	Direction*	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Waiver Ref	Comments / Description of Failure				
1401	^												
1401	<												
1402	>												
1102	<												
1403	>												
	<												
1404	>												
	<												
1405	>												
	<												
1406	>												
	^												
1407	·												
	>												
1408	<												
4.400	>												
1409	<												
1410	>												
1410	<												
1411	^												
1711	<												
1412	>												
	<												
* > Denotes	s Fron	n CPA;	; < Der	notes F	rom CI	PB			Fod Of Number Translation Comica Desuit Chart				
	End Of Number Translation Service Result Sheet												

5.6 Personal Number & Assistant Services

5.6.1 Test List

	Service Type:						nal Number Service al Assistant Service				
					enar	io					
Test	Test Description			A	В	(
			1	2		1	2				
1501	ISDN Data - Fixed					•					
1502	ISDN Data - Mobile		•			•					
1503	Successful Call										
1504	Calling Line Identity Unavailable										
1505	Presentation Number										
1506	Calling Line Identity Withheld			-		-					
1507	Backward & Forward Release To Voicemail										
1508	Incomplete Destination Number										
1509	Hookflash, Suspend / Resume & Called Party Hold Time Out										
1510	Called Party Answer Time Out & Subsequent Call Treatment										
1511	Fixed - Busy & Out of Order										
1512	Mobile - Busy / Unreachable / Switched Off										
1513	Spare Number & Incoming Calls Barred										
1514	Malicious Call Identification						•				
1515	Personal Assistance Service - Answer Timing										
1516	Personal Assistant Service - Called Party Answer Time Out										
	End of Persona	Numbering /	Pers	onal A	Assist	ant T	ests				

5.6.2 Test Procedures

1501		ISDI	N Data - Fix	red		PN/PA				
	Test Procedure									
1	1 Make a data call via the CPs PN/PA service									
2	Confirm that the presentation number is displayed									
3	Co	onfirm that the cor	nnected line i	number is d	isplayed					
4	Ar	nswer (Auto Answ	er)							
5	Fo	rward release the	call							
	Expected Results									
Mess	age	Sequence Label(s)	S6			T1				

1502	ISDN Data - Mobile	PN/PA								
	Test Procedure									
¹ 9.	Make data calls via the CPs PN/PA service to a mobile at the following bit rates: 9.6/19.2/64kbs									
2 Ar	swer (Auto Answer)									
3 C	nfirm that the presentation number is displayed to the called party									
4 Fo	rward release the call									
	Expected Results									
Messa	ge Sequence Label(s) S6 T1									

1503	03 Successful Call								
	<u>Test Procedure</u>								
1	M	ake a speech call via the CPs PN/PA service							
2	Ar	nswer							
3	C	onfirm that the Network Number is displayed to the called party							
4	Fo	orward release the call. Cause indicator = 16							
	Expected Results								
Messa	age (Sequence Label(s) S4 P1 T1							

150	04 Calling Line Identity Unavailable									
	<u>Test Procedure</u>									
1	Make Data changes so that the call is marked "Unavailable" (Blocking Not Available to Caller)									
2	M	ake a speech call via the CPs PN/PA service to a DEL								
3	C	onfirm that the identity is shown as 'Unavailable' to the called party								
4	Aı	nswer								
5	F	orward release the call. Cause indicator = 16								
	Expected Results									
Mess	Message Sequence Label(s) S4 P1 T1									

150	5	Presentation Number	PN/PA							
	<u>Test Procedure</u>									
1	Make data changes to provide a presentation number on the calling line									
2	Make a speech call via the CPs PN/PA service to a DEL									
3	C	onfirm that the presentation number is displayed								
4	Ar	nswer								
5	Fo	orward release the call. Cause indicator = 16								
	Expected Results									
Messa	Message Sequence Label(s) S4 P1 T1									

1506	5	Calling Li	ing Line Identity Withheld			PN/PA				
	Test Procedure									
1	Make a speech call via the CPs PN/PAS service to a DEL, but restrict the calling identity									
2	Confirm that the ca	alling identity i	s restricted t	to the called p	arty					
3	Forward release th	e call. Cause	indicator = '	16						
	Expected Results									
Messa	ge Sequence Label(s)	S4		P1	T1					

1507	Back	ward & Forv	vard Releas	se To Voicem	ail	PN/PA					
	Test Procedure - Backward Release										
1	Make a speech call via the CPs PN/PA service which is transferred to automated voicemail										
2	Leave a brief mess	age									
3	Forward release th	e call. Cause	indicator =	16							
	Expected Results										
Massa											
wiessag	ge Sequence Label(s) 	S4 		P1	T1						
		Test Proced	dure - Forwa	rd Release							
1	Make a speech cal voicemail	I via the CPs	PN/PA serv	ice which is tra	ansferred to a	utomated					
2	Leave a brief mess	age									
3	Leave the connection open until the voicemail system or PN/PA service releases										
	Expected Results										
Messa	Message Sequence Label(s) S4 P1 T1										

1508	Incomplete Destination Number PN/PA									
	Test Procedure									
2 (Make a speech call via the CPs PN/PA service to a DEL omitting last digarty number Confirm call releases to an appropriate tone or announcement forward release the call	it of called								
	Expected Results									
Message	Sequence Label(s) S1/S3 U5									

150	9	Hookflash, S	Suspend / Res	sume & Call	ed Party Ho	ld Time Out	PN/PA				
	Test Procedure										
1	1 Make a speech call via the CPs PN/PA service to a DEL										
2	Ar	nswer									
3	CI	ear and re-answ	er								
4	CI	ear the call from	the called pa	rty							
5	W	ait for called par	ty hold timer t	o mature. Ca	ause indicato	r = 16					
	Expected Results										
Messa	Message Sequence Label(s) S4 P1 P2 T2d										

1510	0	Called Party Answer Time Out & Subsequent Call		II Treatment	PN/PA						
	<u>Test Procedure</u>										
1	1 Make a speech call via the CPs PN/PA service to a DEL (without answer service)										
2	Do	o not answer									
3		ait for the called stem to connect		time out to n	nature, or the	PN/PA service	voicemail				
4	Fo	orward release th	e call. Cause	indicator = 1	9						
Expected Results											
Messa	Message Sequence Label(s) \$4 T2c										

1511	Fixed - Busy & Out of Order		PN/PA							
	Test Procedure - Busy									
 Make a speech call via the CPs PN/PA service to a busy DEL (calls not forwarded) Confirm that an appropriate tone or announcement is heard by the calling party 										
	Expected Results									
Message	e Sequence Label(s) S4 U1									
	Test Procedure - Out of Order									
1 N	Make a speech call via the CPs PN/PA service to an "Out	of Order" DEL								
2 (2 Confirm that an appropriate tone or announcement is heard by the calling party									
Expected Results										
Message	e Sequence Label(s) S4 U2									

1512	2 Mol		ile - Busy, U	PN/PA						
	Test Procedure - Busy									
Make a speech call via the CPs PN/PA service to a busy mobile (calls not forwarded)										
2	Co	onfirm that an app	oropriate tone	e or announ	cement is hea	ard by the calli	ng party			
			<u>Ex</u>	pected Resu	<u>ılts</u>					
Messa	ige S	Sequence Label(s)	S3	U1						
1 2	no	ake a speech cal t forwarded) onfirm that an app	I via the CPs	e or announ	cement is hea		·			
			<u> </u>	pected Resu	<u>iits</u>					
Messa	age S	Sequence Label(s)	S4			T1				
1	Test Procedure - Switched Off Make a speech call via the CPs PN/PA service to a switched off mobile (calls not forwarded)									
2	2 Confirm that an appropriate tone or announcement is heard by the calling party									
	Expected Results									
Messa	ige S	Sequence Label(s)	S4			T1				

1513		Spare Number	· & Incoming		PN/PA					
Test Procedure - Spare										
1 Set the terminating DEL as 'Spare'										
2 M	ake a speech ca	II via the CPs	PN/PA serv	ice						
3 C	onfirm that an ap	propriate tone	or annound	cement is hea	ard by the calling	g party				
	Expected Results									
Message	Sequence Label(s)	S 3	U3							
	Te	est Procedure	e - Incomin	g Calls Barr	<u>ed</u>					
1 S	et the terminating	DEL as 'Inco	ming Calls	Barred'						
2 M	ake a speech ca	II via the CPs	PN/PA serv	ice						
3 C	3 Confirm that an appropriate tone or announcement is heard by the calling party									
Expected Results										
Message Sequence Label(s) S3 U6										

1514	4	Malicious Call Identification	PN/PA						
	Test Procedure								
Using a destination line with MCI or similar set, make a speech call via the CPs PN/PA service									
2	C	onfirm that the 'hold request' indicator is set in the ACM							
3	Αı	nswer & invoke MCI (or equivalent) on the called party's CPE							
4	Αt	ttempt to clear the call from the calling party							
5	lf	the call remains held, manually release the call							
6	C	onfirm that the calling party's details have been stored by the termination	ng CP						
Expected Results									
Messa	age :	Sequence Label(s) \$4	M2						

1515	Personal Assistant Service - Answer Timing	PN/PA

Test Procedure

- Make a speech call to the CPs PA service which has been set up to poll a DEL, Mob and ISDN simultaneously (ensure the polling messages are sent back to BT via the test route)
- 2 Confirm that: Call set up messages are sent to all of the destinations simultaneously & that these are **new** calls and not 'Call Forwards' The DEL, Mob and ISDN all ring

An immediate answer message is returned and ringing is returned to caller

That the answer message is chargeable

- 3 Answer from the Mob
- 4 Confirm the calls to the DEL & ISDN are immediately forward released by the PA service controller
- 5 Confirm that ringing stops to caller & bothway speech is then possible
- 6 Backward clear the call confirm both legs of the call clear normally

Expected Results												
Message Sequence Label(s)												
A Leg to PA Service	S4		P1	T1								
B leg to ISDN Speech	S4			T1								
B Leg to DEL	S4			T1								
B Leg to Mob	S4		P1	T1								

1516 Personal Assistant Service - Called Party Answer Time Out PN/PA

Test Procedure

- Make a speech call to the CPs PA service which has been set up to poll a DEL, Mob and ISDN simultaneously (ensure the polling messages are sent back to BT via the test route)
- 2 Confirm that: Call set up messages are sent to all of the destinations simultaneously & that these are **new** calls and not 'Call Forwards' The DEL, Mob and ISDN all ring

An immediate answer message is returned and ringing is returned to caller

That the answer message is chargeable

- 3 Do not answer the calls and allow the service called party answer time out mature
- 4 Confirm that ringing tone stops to the caller and that the DEL, Mob and ISDN all stop ringing
- 5 Forward release the call and Confirm the call clears normally

Expected Results										
Message Sequence Label(s)	S4		P1	T1						
B leg to ISDN Speech	S4			T1						
B leg to DEL	S4			T1						
B leg to Mobile	S4			T1						

5.6.3 Test Result Sheet

							Results Sheet:	Personal Number Service Personal Assistant Service
	Co	mple	ted		Failed	d		
Test	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Failu	re
1501								
1502								
1503								
1504								
1505								
1506								
1507								
1508								
1509								
1510								
1511								
1512								
1513								
1514							-	
1515								
1516								
							End Of Personal Num	ber & Assistant Services Result Sheet

5.7 Indirect Access Single Stage

5.7.1 Test List

	Service Type: Indirect Access Single Stage									
						Scenario				
Test	Test Description		Α		В	С				
			1	2	_	1	2			
1601	ISDN Data									
1602	ISDN Data - Incompatible Destination		•	•		•				
1603	ISDN Speech		•	•		•				
1604	Successful Call			•		•				
1605	Calling Line Identity Unavailable									
1606	Calling Line Identity Withheld			•						
1607	Presentation Number		•	-						
1608	Hookflash, Suspend / Resume & Called Party Hold Time Out									
1609	Called Party Answer Time Out			•						
1610	Busy & Out of Order		•	-						
1611	Spare Number & Incoming Calls Barred			•						
1612	Malicious Call Identification			•		-				
1613	999/112 & 100 Call Treatment									
1614	Incomplete Destination Number		•			•				
1615	Unregistered Line		-	-						
End of Indirect Access Single Stage Tests										

5.7.2 Test Procedure

1601		ISDN Data	IA1				
	Test Procedure						
1	M	ake a data call via the CPs IA1 service					
2	Co	onfirm that the presentation number is displayed					
3	Co	onfirm that the connected line number is displayed					
4	Ar	nswer (Auto Answer)					
5	5 Forward release the call						
	Expected Results						
Mess	age :	Sequence Label(s) S6 T1					

1602	1602 ISDN Data - Incompatible Destination					
	Test Procedure					
2						
3	3 Forward release the call Expected Results					
Messag	e Sequence Label(s) S1 U4					

160	1603 ISDN Speech				IA1				
	Test Procedure								
1 2 3	Aı	ake an ISDN S nswer orward release			the CPs I	\1 service			
	Expected Results								
Mess	age	Sequence Label(s)		S7		P1	T1		

1604		Successful Call	IA1
		Test Procedure	
1	М	ake a call using the CPs IA1 service	
2	Aı	nswer	
3	F	orward release the call	
4	C	onfirm that the network number is displayed to the called party	
		Expected Results	
Messa	age :	Sequence Label(s) S2 P1 T1	

1605	Calling Line Identity Unavailable	IA1					
	<u>Test Procedure</u>						
1	Make data changes so that the call is marked as 'Unavailable'						
2	Make a speech call via the CPs IA1 service						
3	Answer						
4	Forward release the call						
5	Confirm that number is shown as 'Unavailable' to the called party						
	Expected Results						
Messa	ge Sequence Label(s) S2 P1 T1						

1606		Calling Li	ne Identity	Withheld		IA1
	Test Procedure					
2 (Make a speech call via the CPs IA1 service to a DEL, but restrict the calling identity Confirm that the calling identity is restricted to the called party 					ng identity
3 F	orward release the			•		
		<u>Ex</u>	pected Resu	<u>lits</u>		
Message	Sequence Label(s)	S2		P1	T1	

1607	Presentation Number	IA1				
	Test Procedure					
1	Make data changes to provide a presentation number on the calling line					
2	Make a speech call via the CPs IA1 service to a DEL					
3	Confirm that the presentation number is displayed					
4	Answer					
5	Forward release the call					
	Expected Results					
Messa	Message Sequence Label(s) S2 P1 T1					

1608 Hook		Hookflash, S	Suspend / Res	sume & Call	ed Party Ho	ld Time Out	IA1
	Test Procedure						
1	M	ake a speech ca	II via the CPs	IA1 service t	o a DEL		
2	Αı	nswer					
3	3 Clear and re-answer						
4	C	ear the call from	the called par	rty			
5	W	ait for called part	ty hold timer to	o mature			
	Expected Results						
Message Sequence Label(s)			S1	P1	P2	T1	

1609		Called Party Answer Time Out						
	<u>Test Procedure</u>							
1 2		ake a speech call via the CPs IA1 service						
3		ait for the called party answer timer to mature. Cause indicator = 19						
		Expected Results						
Mess	age	Sequence Label(s) S2 T2c						

1610	Busy & Out of Order					
	<u>Test Procedure - Busy</u>					
	Make a speech call via the CPs IA1 service to a busy DEL (calls not forward form that an appropriate tone or announcement is heard by the calling	,				
	Expected Results					
Messag	e Sequence Label(s) S1 U1					
Expected Results						
Messag	Message Sequence Label(s) S1 U2					

1611	1611 Spare Number & Incoming Calls Barred				
	Test Procedure - Spare				
1 Se	et the terminating DEL as 'Spare'				
2 M	ake a speech call via the CPs IA1 service				
3 Co	onfirm that an appropriate tone or announcement is heard by the calling	gparty			
	Expected Results				
Message	Sequence Label(s) S1 U3				
	Test Procedure - Incoming Calls Barred				
1 Se	et the terminating DEL as 'Incoming Calls Barred'				
2 M	ake a speech call via the CPs IA1 service				
3 C	3 Confirm that an appropriate tone or announcement is heard by the calling party				
Expected Results					
Message	Sequence Label(s) S1 U6				

161	Malicious Call Identification				
	Test Procedure				
1		sing a destination line with MCI or similar set, make a speech call via	he CPs IA1		
2	C	onfirm that the 'hold request' indicator is set in the ACM			
3	Ar	nswer & invoke MCI (or equivalent) on the called party's CPE			
4	At	tempt to clear the call from the calling party			
5	lf [•]	the call remains held, manually release the call			
6	C	onfirm that the calling party's details have been stored by the terminat	ing CP		
	Expected Results				
Mess	age :	Sequence Label(s) S2	M2		

1613	999/112 & 100 Call Treatment	IA1

Test Procedure - 999/112

- 1 Make a call using the CPs IA1 service, with the destination number = 999
- 2 Confirm that one of the following occurs:
 - i) An ACM is returned followed by a suitable in band announcement clearly stating "Please redial without using the IA Code" or similar
 - ii) The call completes successfully to either a BT **OR** CP Emergency Service Call Handling Centre
- **3** For ii) confirm that on the ongoing section of the call that the Protection Indicator is set and that the page information is appropriate
- 4 Confirm either:
- a The Non BT Emergency CHC Assistant can see the CLI, or
- The BT Emergency CHC Assistant can see the II digits appropriate for the CP

Attempt to forward release the call (this should not be possible), then ask the

- **5** Emergency Service Call Centre Assistant to release the call and confirm that the call releases appropriately
- Repeat with the destination number = 112, confirming that if the CP sends the call to BT, that the destination digits are changed to 999.

Expected Results									
i) Message Sequence Label(s)	S2			T1					
li) Message Sequence Label(s)	S2		P1	T1					

<u>Test Procedure - 1</u>00

- 1 Make a call using the CPs IA1 service, with the destination number = 100
- 2 Confirm that one of the following occurs:
 - i) An ACM is returned followed by a suitable in band announcement clearly stating "Please redial without using the IA Code" or similar
 - ii) The call completes successfully to either a BT **OR** CP Operator Service Call Handling Centre
- 3 Forward release the call

Expected Results									
i) Message Sequence Label(s)	S4		T1						
ii) Message Sequence Label(s)	S4	P1	T1						

1614	Incomplete Destination Number	IA1							
Test Procedure									
1 r	 Make a speech call via the CPs IA1 service omitting last digit of the called party number Confirm call releases to suitable announcement or tone 								
3 F	orward release the call								
	Expected Results								
Message	Message Sequence Label(s) S3 U5								

161	15	Unregistered Line				IA1				
	<u>Test Procedure</u>									
1	1 Using an unregistered line make a call using the CPs IA1 service									
2	Co	onfirm that the ca	illed party's C	PE does not	ring					
3	Listen to the in-band announcement (if provided) ad confirm that no advertising takes place (including contact numbers / websites / e-mail addresses being quoted etc), *unless an answer message is sent first									
4	Co	onfirm suitable ca	all rejection oc	curs						
5	Co	onfirm that the ca	III clears norm	ally						
6	lf d	calls drops back	to voice prom	pts for IA2, f	ollow the IA2	procedure				
	Expected Results									
Mess	sage	Sequence Label(s)	S2		P1*	T1				

5.7.3 Test Results Sheet

Results sheet is on next page.

							Results Sheet:	Indirect Access Single Stage
	Co	mple	ted		Faile	d		
Test	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Fai	lure
1601								
1602								
1603								
1604								
1605								
1606								
1607								
1608								
1609								
1610								
1611								
1612								
1613								
1614								
1615								
·							End Of Ir	ndirect Access Single Stage Result Sheet

5.8 Indirect Access Two Stage

5.8.1 Test List

	Service Type:	ndirect A	Acc	ess	Two	Sta	ıge	
				Sc	enar	io		
Test	Test Description		- 1	A	В		0	
			1	2		1	2	
1701	ISDN Data - Service Incompatible						•	
1702	ISDN Speech			•		•	•	
1703	Successful Call							
1704	Calling Line Identity Unavailable							
1705	Calling Line Identity Withheld			•				
1706	Presentation Number							
1707	Hookflash, Suspend / Resume & Called Party Hold Time Out							
1708	Called Party Answer Time Out							
1709	Busy & Out of Order						•	
1710	Spare Number & Incoming Calls Barred			•			•	
1711	Malicious Call Identification							
1712	999/112 & 100 Call Treatment							
1713	Incomplete Destination Number							
1714	Invalid Authorisation Code							
	End of Indirect Access Two Stage Tests							

5.8.2 Test Procdures

Tests commence on next page.

170°	1	ISDN Data - Incompatible Service								
	<u>Test Procedure</u>									
1 2 3	C	ake a data call via the CPs IA2 service onfirm that call is rejected orward release the call								
	Expected Results									
Messa	age :	Sequence Label(s) S3 U8								

1702	2 ISDN Speech			IA2					
	<u>Test Procedure</u>								
1 2 3	Make an ISDN Spo Answer Forward release th		he CPs IA1	service					
	Expected Results								
Messa	ge Sequence Label(s)	S7		P1	T1				

170	3	Successful Call								
	<u>Test Procedure</u>									
1	1 Make a call using the CPs IA2 service									
2	Αı	nswer								
3	F	orward release the call								
4	C	onfirm that the network number is displayed to the called party								
	Expected Results									
Mess	age	Sequence Label(s) S4 P1 T1								

170	4	Calling Line Identity Unavailable	IA2							
	<u>Test Procedure</u>									
1	1 Make data changes so that the call is marked as 'Unavailable'									
2	Make a speech call via the CPs IA2 service									
3	Ar	nswer								
4	Fo	orward release the call								
5	C	onfirm that number is shown as 'Unavailable' to the called party								
	Expected Results									
Messa	Message Sequence Label(s) S4 P1 T1									

1705	Calling Line Identity Withheld								
	<u>Test Procedure</u>								
2	Make a speech call Confirm that the ca Forward release the	lling identity i				ling identity			
	Expected Results								
Message Sequence Label(s) S4 P1 T1									

1706	6	Presentation Number	IA2								
	<u>Test Procedure</u>										
1	1 Make data changes to provide a presentation number on the calling line										
2	Ma	ake a speech call via the CPs IA2 service to a DEL									
3	Co	onfirm that the presentation number is displayed									
4	Ar	nswer									
5	Fc	orward release the call									
	Expected Results										
Message Sequence Label(s) S4 P1 T1											

170	7	Hookflash, Suspend / Resume & Called Party Hold Time Out										
	Test Procedure											
1	1 Make a speech call via the CPs IA2 service to a DEL											
2	2 Answer											
3	С	ear and re-answ	er									
4	С	ear the call from	the called par	rty								
5	W	ait for called part	ty hold timer to	o mature								
	Expected Results											
Mess	Message Sequence Label(s) S4 P1 P2 T2c											

1708		Called Par	ty Answer	Time Out		IA2			
	Test Procedure								
1 M									
2 D	o not answer								
3 V	ait for the called	party answer	timer to mat	ture					
		Exp	pected Resu	<u>lts</u>					
Ingress N	Message Sequence	S4		P1	T1				
Egress N	lessage Sequence	S4			T2c				

1709	1709 Busy & Out of Order									
	Test Procedure - Busy									
		Exp	ected Resu	<u>lts</u>						
Message	Sequence Label(s)	S4		P1	T1					
	ake a speech cal	I via the CPs IA		an "Out of O		,				
2 (Confirm that an appropriate tone or announcement is heard by the calling party <u>Expected Results</u>									
Message	Sequence Label(s)	S4		P1	T1					

171	0	Spare Number & Incoming Calls Barred											
	Test Procedure - Spare												
1	Se	et the terminating	DEL as 'Sp	are'									
2	Ma	ake a speech call	via the CPs	s IA2 service									
3	Co	onfirm that an app	ropriate tor	ne or annound	ement is hea	rd by the callin	g party						
	Expected Results												
Mess	age S	Sequence Label(s)	S4		P1	T1							
		Те	st Procedu	re - Incoming	g Calls Barre	ed							
1	Se	et the terminating				_							
2	Ma	ake a speech call	via the CPs	s IA2 service									
3	Co	onfirm that an app	ropriate tor	ne or annound	ement is hea	rd by the callin	g party						
	Expected Results												
Mess	age S	Sequence Label(s)	S4		P1	T1							

171	1		Malicious	s Call Identi	fication		IA2				
	<u>Test Procedure</u>										
1	Using a destination line with MCI or similar set, make a speech call via the CPs IA service										
2	C	onfirm that the 'ho	old request' ir	ndicator is se	t in the ACM						
3	Ar	nswer & invoke M	CI (or equiva	alent) on the	called party's	CPE					
4	At	tempt to clear the	call from the	e calling part	y						
5	lf ·	the call remains h	eld, manuall	y release the	call						
6	C	onfirm that the ca	lling party's o	letails have b	een stored by	y the terminati	ng CP				
	Expected Results										
Mess	age :	Sequence Label(s)	S4		P1	T1					

17	712			999/112	2 & 100 C	all Tr	eatment		IA2	
	Test Procedure - 999/112									
1 2										
		iii)					•	in band annou the IA Code" o		
		iv)		call comple rice Call Ha			ly to either a	BT OR CP Em	ergency	
3		and that the	e page	information	n is appro	priate)	Protection Inc		
4	Con eithe	or:	The					n see the CLI, e the II digits ap		
5	Eme	•	ard re	lease the c	•		•	ble), then ask t and confirm th		
6	•			nation num on digits are			•	the CP sends	the call to	
				<u>!</u>	Expected	Resu	<u>lts</u>			
Ме	ssage	Sequence La	bel(s)	S4			P1	T1		
				<u>Te</u>	est Proce	dure -	<u>100</u>			
1 2			•	Ps IA2 serv		ne des	tination numb	er = 100		
	iii) An ACM is returned followed by a suitable in band announcement clearly stating "Please redial without using the IA Code" or similar									
	iv) The call completes successfully to either a BT OR CP Operator Service Call Handling Centre									
3	Forw	ard release	the ca	II						
				<u>!</u>	Expected	Resu	<u>lts</u>			

S4

Message Sequence Label(s)

P1

T1

1713	Incomplete Destination Number									
	Test Procedure									
1	 Make a speech call via the CPs IA2 service omitting last digit of the called party number Confirm call releases to suitable announcement or tone 									
3	Forward release the call									
	Expected Results									
Messag	e Sequence Label(s) S4 P1 T1									

1714	Invalid Authorisation Code									
	<u>Test Procedure</u>									
2 C	Make a speech call via the CPs IA2 service using an Invalid A Confirm that an appropriate announcement or tone is heard forward release the call	Authorisation	Code							
	Expected Results									
Message Sequence Label(s) S4 P1 T1										

5.8.3 Test Results Sheet

Results sheet is on next page.

						Results Sheet: Indirect Access Two Stage	
	Co	mple	ted		Faile	d	
Test	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Failure
1701							
1702							
1703							
1704							
1705							
1706							
1707							
1708							
1709							
1710							
1711							
1712							
1713							
1714							
							End Of Indirect Access Two Stage Result Sheet

5.9 Carrier Pre-Select

5.9.1 Test List

Service Type:

Carrier Pre-Select

The expected testing method will be Originating Network (Originating NTE) via the CPS Number Range Owners switch back to the Originating Network (Terminating NTE). Where this is not possible test procedure and results should be adjusted as necessary. Calls must be repeated for each CPS service that the CP provides e.g. Local, National & International

			Sc	enar	rio	
Test	Test Description	1		R	(3
		1	2	ם	1	2
1801	ISDN Data					
1802	ISDN Data - Incompatible Destination	•	•			•
1803	ISDN Speech		-			
1804	Successful Call					
1805	Calling Line Identity Unavailable					
1806	Calling Line Identity Withheld					
1807	Presentation Number		-			
1808	Hookflash, Suspend / Resume & Called Party Hold Time Out					
1809	Called Party Answer Time Out					
1810	Busy & Out of Order		-		-	
1811	Spare Number & Incoming Calls Barred		•			
1812	Malicious Call Identification		-			
1813	999/112 & 100 Call Treatment		-			
1814	Incomplete Destination Number					
1815	Unregistered Line		•			
1816	Last Diverting Line Identity (For CPs Supporting Call Divert)					
1817	Unsupported Destination Service		•			•
	End o	f Car	rier Pı	e-Sel	ect T	ests

5.9.2 Test Procedures

Tests commence on next page.

180	1	ISDN Data	CPS							
	Test Procedure									
1	M	ake a data call via the CPs CPS service								
2	Co	onfirm that the presentation number is displayed								
3	Co	onfirm that the connected line number is displayed								
4	Ar	nswer (Auto Answer)								
5	Fo	orward release the call								
	Expected Results									
Mess	age	Sequence Label(s) S6 T1								

1802	ISDN Data - Incompatible Destination	CPS						
	Test Procedure							
2 C	lake a data call via the CPs CPS service onfirm that call is rejected (CPE does not ring) orward release the call							
Expected Results								
Message	Message Sequence Label(s) S1 U4							

1803		ISDN Speech						
	Test Procedure							
1	М	ake an ISDN Speech Call via the CPs CPS service						
2	Αı	nswer						
3	F	orward release the call						
	Expected Results							
Messa	age	Sequence Label(s) S7 P1 T1						

1804		Successful Call	CPS					
	Test Procedure							
1	M	ake a call using the CPs CPS service						
2	Αı	nswer						
3	F	orward release the call						
4	C	onfirm that the network number is displayed to the called party						
Expected Results								
Messa	age	Sequence Label(s) S2 P1 T1						

180	5	Calling Line Identity Unavailable	CPS						
	Test Procedure								
1	M	ake data changes so that the call is marked as 'Unavailable'							
2	M	ake a speech call via the CPs CPS service							
3	Αı	nswer							
4	F	orward release the call							
5	C	onfirm that number is shown as 'Unavailable' to the called party							
Expected Results									
Mess	Message Sequence Label(s) S2 P1 T1								

1806	Calling Line Identity Withheld	CPS						
	<u>Test Procedure</u>							
2	3							
Expected Results								
Messag	Message Sequence Label(s) S2 P1 T1							

1807	Presentation Number	CPS							
	<u>Test Procedure</u>								
1	Make data changes to provide a presentation number on the calling line								
2	Make a speech call via the CPs CPS service to a DEL								
3	Confirm that the presentation number is displayed								
4	Answer								
5	Forward release the call								
Expected Results									
Messa	Message Sequence Label(s) S2 P1 T1								

180	8	Hookflash, S	Suspend / Res	sume & Call	ed Party Ho	ld Time Out	CPS		
	Test Procedure								
1	1 Make a speech call via the CPs CPS service to a DEL								
2	Aı	nswer							
3	Clear and re-answer								
4	С	ear the call from	the called par	rty					
5	W	ait for called par	ty hold timer to	o mature					
Expected Results									
Mess	age	Sequence Label(s)	S2	P1	P2	T1			

180	1809 Called Party Answer Time Out							
	Test Procedure							
1	M	ake a speech call via the CPs CPS service						
2	D	o not answer						
3	W	ait for the called party answer timer to mature						
	Expected Results							
Messa	Message Sequence Label(s) S2 T2c							

1810	Busy & Out of Orde	r	CPS				
	<u>Test Procedure - Bus</u>	<u>87</u>					
	 Make a speech call via the CPs CPS service to a busy DEL (calls not forwarded) Confirm that an appropriate tone or announcement is heard by the calling party 						
	Expected Results						
Message	Message Sequence Label(s) S1 U1						
	Test Procedure - Out of C	<u>Order</u>					
1 M	lake a speech call via the CPs CPS service to ar	n "Out of Order" DEL					
2 Co	onfirm that an appropriate tone or announcem	nent is heard by the calling	party				
Expected Results							
Message	Message Sequence Label(s) S1 U2						

1811 Spare Number & Incoming Calls Barred						
	Test Procedure - Spare					
1 8	set the terminating DEL as 'Spare'					
2 N	lake a speech call via the CPs CPS service					
3 (confirm that an appropriate tone or announcement is heard by the call	ing party				
	Expected Results					
Message	Sequence Label(s) S1 U1					
	Test Procedure - Incoming Calls Barred					
1 8	et the terminating DEL as 'Incoming Calls Barred'					
2 N	Take a speech call via the CPs CPS service					
3 (3 Confirm that an appropriate tone or announcement is heard by the calling party					
Expected Results						
Message	Sequence Label(s) S1 U6					

1812		Malicious Call Identification		CPS			
	Test Procedure						
1	1 Using a destination line with MCI or similar set, make a speech call via the CPs CPS service						
2	C	onfirm that the 'hold request' indicator is set in the ACM					
3	Αı	nswer & invoke MCI (or equivalent) on the called party's CPE					
4	Αt	ttempt to clear the call from the calling party					
5	lf	the call remains held, manually release the call					
6	C	onfirm that the calling party's details have been stored by the term	inatin	g CP			
Expected Results							
Mess	age	Sequence Label(s) S2 P1		M2			

18	813			999/112 &	100 Call Tr	eatment		CPS	
	Test Procedure - 999/112								
1	1 Make a call using the CPs CPS service, with the destination number = 999								
2	Con	firm that on	ne of the	e following oc	curs:				
		i) ii)		call completes P Emergency		•			
3	set a	and that the	e page i a The N	information is Non BT Emer	appropriate gency CHC	Assistant car	Protection Ind	or	
	eithe	er: b	The E for th		y CHC Assi	stant can see	the II digits ap	opropriate	
5	Eme	•	rvice Ca	all Centre Ass	•	•	ole), then ask t and confirm th		
6				ation number n digits are cl		•	the CP sends	the call to	
				Exp	ected Resul	<u>ts</u>			
Ме	ssage	Sequence Lal	bel(s)	S2	P1	P2	T1		
-				Test	Procedure -	<u> 100</u>			
1	Make	e a call usin	g the CF	Ps CPS service	e, with the de	stination numb	per = 100		
2	Conf	irm that one	of the f	ollowing occur	s:				
	i) The call completes successfully to either a BT ii) or CP Operator Service Call Handling Centre								
3	Forw	ard release	the call						
				Exp	ected Resul	<u>ts</u>			
Ме	ssage	Sequence Lal	bel(s)	S2		P1	T1		

1814	Incomplete Destination Number							
Test Procedure								
 Make a speech call via the CPs CPS service omitting last digit of the called party number Confirm call releases to suitable announcement or tone 								
3	Forward release the call							
Expected Results								
Messag	Message Sequence Label(s) S1 U5							

181	15	Unregistered Line					CPS		
	Test Procedure								
1	1 Using an unregistered line make a call using the CPs CPS service								
2	Co	Confirm that the called party's CPE does not ring							
3	tal eta	Listen to the in-band announcement (if provided) and confirm that no advertising takes place (including contact numbers / websites / e-mail addresses being quoted etc), unless an answer message is sent first Confirm suitable call rejection occurs							
5		Confirm that the call clears normally							
6		f calls drops back to voice prompts for IA2, follow the IA2 procedure							
Expected Results									
Mess	sage	Sequence Label(s)	S2		(P1)	T1			

1816 **Last Diverting Line Identity (For CPs Supporting Call Divert) CPS Test Procedure** Use 3 lines on the Originating network, A B & C. Line B has been set with 'call divert on no answer' to line C, but has also been enabled with National Call Type CPS for this CP 1 From line A call line B 2 Confirm call is diverted to line C Via the CPs CPS service 3 4 Clear the call from the originating party 5 Confirm that the network number of Line A is displayed on line C For Scenario A1 only, confirm that the CP has used the LDLI to charge line B **Expected Results**

P1

T1

S2

Message Sequence Label(s)

1817	Unsupported Destination Service	CPS
_		

Test Procedure

- Make a call using the CPs CPS service to a type of call which is not supported by the CP, e.g. PRS
- Confirm that one of the following occurs:
 - The call is released with an appropriate CNA message followed by a BT announcement or tone
 - ii) An ACM is returned followed by a suitable in band 'Number Unobtainable' tone
 - iii) An ACM is returned followed by a suitable CPs in band announcement

Note: If the announcement contains any advertising* the CP is contractually obliged to provide an ANM message <u>before</u> the announcement is played

- * Advertising means any form of information identifying the CP
- **3** For iii), do not hang up, confirm that the call is appropriately released by the CP within a suitable duration.
- 4 Confirm any ANM message returned is chargeable

Expected Results							
i) Message Sequence Labels	S 1	U3					
ii) Message Sequence Labels	S2	_	_	T1			
iii) Message Sequence Labels	S2		(P1)	T1			

5.9.3 Test Results Sheet

Results sheet is on next page.

	Results Sheet: Carrier Pre-Select							
	Co	mple	eted Failed		d			
Test	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Comments / Description of Failure	
1801								
1802								
1803								
1804								
1805								
1806								
1807								
1808								
1809								
1810								
1811								
1812								
1813								
1814								
1815								
1816								
1817								
							End Of Ca	arrier Pre-Select Result Sheet

5.10 Video Calls

5.10.1 Test List

	Service Type:	Video Calls						
Test	Test Description	-	A	В	(С		
		1	2	ם	1	2		
1901	Successful Call				•	•		
1902	Calling Line Identity Withheld				•			
1903	Diverted Call							
1904	Suspend / Resume & Called Party Hold Time Out							
1905	Called Party Answer Time Out							
1906	Busy	•			-	•		
1907	Spare Number							
1908	Incompatible Destination				-			
		End	of Vi	deo (Call T	ests		

5.10.3 Test Procedures

Tests commence on next page.

1901	Successful Call	VID									
	<u>Test Procedure</u>										
1 M	ake a 64kbs video call										
2 A	nswer										
3 C	onfirm that the presentation number is displayed to calling party										
4 C	ear the call from the originating party										
	Expected Results										
Messag	Message Sequence Label(s) S6 T1										

1902 Calling Line Identity Withheld										
	<u>Test Procedure</u>									
2 (lake a 64kbs video confirm that the calliconward release the	ng identity i	_	•						
	Expected Results									
Messag	Message Sequence Label(s) S6 T1									

190	1903 Diverted Call										
	<u>Test Procedure</u>										
1	Mak	e a 64kbs video c	all which is	diverted to an	ISDN NTE						
2	Ans	wer (Auto Answer))								
3	Clea	ar the call from the	originating	party							
4	Con	firm that the prese	ntation nun	nber is display	'ed						
	Expected Results										
Mes	Message Sequence Label(s) S6 T1										

1904	Susper	nd / Resume	& Called Pa	e Out	VID						
	<u>Test Procedure</u>										
1 [1 Make a 64kbs video call										
2 /	Answer										
3 (Clear and re-answe	r (note this ma	ay not be po	ssible with sor	me ISDN NTEs	3)					
4 (Clear the call from t	he called party	/								
5 \	Wait for called party	hold timer to	mature								
	Expected Results										
Messa	ge Sequence Label(s)	S6		P2	T2c/d						

1905	5 Called Party Answer Time Out										
	<u>Test Procedure</u>										
	1 Make a 64kbs video call										
	not answer hit for the called party answer time out to mature										
	Expected Results										
Message	Message Sequence Label(s) S4 T2c										

06			Busy			VID			
Test Procedure - No Answering Service									
 Make a 64kbs video call to a busy line Confirm that suitable display/voice announcement is seen/heard by the caller Confirm that an appropriate release sequence occurs 									
Expected Results									
sage \$	Sequence Label(s)	S 3	U1						
	<u>T</u>	est Procedure	- With Ans	wering Servi	<u>ce</u>				
Mal	ke a 64kbs video	call to a busy	line						
Cor	nfirm that an ansv	ver message	is sent						
Wa	it for the message	e service to te	rminate the	call					
Cor	nfirm that the vide	o message h	as recorded	d properly					
Expected Results									
sage \$	Sequence Label(s)	S 4		P1	T1				
	Mal Cor Sage S Mal Cor Wa Cor	Make a 64kbs video Confirm that suitable Confirm that an appr sage Sequence Label(s) To Make a 64kbs video Confirm that an answ Wait for the message	Make a 64kbs video call to a busy Confirm that suitable display/voice Confirm that an appropriate release Sage Sequence Label(s) S3 Test Procedure Make a 64kbs video call to a busy Confirm that an answer message Wait for the message service to te Confirm that the video message h	Test Procedure - No Answ Make a 64kbs video call to a busy line Confirm that suitable display/voice announce Confirm that an appropriate release sequence Expected Results Sage Sequence Label(s) S3 U1 Test Procedure - With Answ Make a 64kbs video call to a busy line Confirm that an answer message is sent Wait for the message service to terminate the Confirm that the video message has recorded Expected Results	Test Procedure - No Answering Service Make a 64kbs video call to a busy line Confirm that suitable display/voice announcement is seen Confirm that an appropriate release sequence occurs Expected Results sage Sequence Label(s) S3 U1 Test Procedure - With Answering Service Make a 64kbs video call to a busy line Confirm that an answer message is sent Wait for the message service to terminate the call Confirm that the video message has recorded properly Expected Results	Test Procedure - No Answering Service Make a 64kbs video call to a busy line Confirm that suitable display/voice announcement is seen/heard by the call confirm that an appropriate release sequence occurs Expected Results sage Sequence Label(s) S3 U1 Test Procedure - With Answering Service Make a 64kbs video call to a busy line Confirm that an answer message is sent Wait for the message service to terminate the call Confirm that the video message has recorded properly Expected Results			

1907	7		SI	Spare Number							
	<u>Test Procedure</u>										
1 3	Set	the terminating li	ne as 'spare'	1							
2 [Mak	ke a 64kbs video	call								
3 (Con	firm that an appr	opriate clear	ing cause is	returned						
	Expected Results										
Message Sequence Label(s) S3 U3											

1908	1908 Incompatible Destination									
	Test Procedure									
	1 Make a 64kbs video call to a DEL2 Confirm that an appropriate release sequence occurs									
	Expected Results									
Message Sequence Label(s) S3 U4										

5.10.3 Test Result Sheet

Results sheet is on next page.

	Results Sheet: Video Call									
		Cor	nplet	ed		Failed				
Test	Direction*	No Issues	CPA Issue	CPB Issue	CPA Issue	CPB Issue	Other	Waiver Ref	Comments / Description of Failure	
1901	>									
1901	<									
1902	>									
1302	<									
1903	>									
1000	<									
1904	>									
	<									
1905	>									
	<									
1906	>									
	<									
1907	>									
	<									
1908	>									
	<									
* > Denote	s Fror	n CPA	; < Der	notes F	rom CI	РВ				
									End Of Video	Calls Result Sheet

6 Resources

6.1 Standard Message Sequences

6.1.1 Message Sequence Categories

Category	Label	Туре
	S 1	Overlap (Pre ACM)
	S2	Overlap (Post ACM)
	S3	Enbloc (Pre ACM)
Successful Call Set-Up	S4	Enbloc (Post ACM)
	S 5	Call with Basic Service Marks
	S6	ISDN Data Enbloc
	S7	ISDN Speech Enbloc
	U1	Busy
	U2	Out Of Order
	U3	Unallocated Number
	U4	Incompatible Destination
Unsuccessful Call Set-Up	U5	Address Incomplete
	U6	Normal Unspecified
	U7	Service Not Available
	U8	Bearer Capability Not Implemented
Call Progression	P1	Answered Call
Call Progression	P2	Suspend Resume
Call Termination	T1	End User Release
Can remination	T2	Network Release
Miscellaneous Sequences	M1	RBWF
iviiscellarieous sequerices	M2	Malicious Call Intercept

6.1.2 Message Sequences

Commence on next page.

Label		Successful	Call Set-Up	Part
S1		Overlap Signal	lling (Pre ACM)	1 of 1
	Seque	ence	Exceptions	
Invite (IAM + S	SDP) >		All fields as per reference IAM	
	<	100 Trying		
	<	183 SDP		
PRACK	>			
	<	200 OK (Prack)		
Invite 2 (IAM SDP)	>			
	<	100 Trying		
	<	484	Address Incomplete Invite 1	
ACK	>			
	<	183 SDP		
PRACK	>			
	<	200 OK (Prack)		
Invite 3 (IAM SDP)	+ 			
	<	100 Trying		
	<	484	Address Incomplete Invite 2	
ACK	>			
	<	183 SDP		
PRACK	>			
	<	()		
	Invite s	equence repeated for a	idditional digits	

Label	Successful Call Set-Up Part				
S2	Overlap Signalling (Post ACM)			1 of 1	
	Sequence		Exceptions		
Invite (IAM + SD	P) >		All fields as per reference IAM		
	<	100 Trying			
	<	183 SDP			
PRACK	>				
	<	200 OK (Prack)			
Invite 2 (IAM + SDP)	>				
	<	100 Trying			
	<	484	Address Incomplete Invite 1		
ACK	>				
	<	183 SDP			
PRACK	>				
	<	200 OK (Prack)			
Invite 3 (IAM + SDP)	>				
	<	100 Trying			
	<	484	Address Incomplete Invite 2		
ACK	>				
	<	183 SDP			
PRACK	>				
	<	200 OK (Prack)			
	Sequ	uence repeated for	additional digits		
	<	200 OK		_	
	< 1	180 Ringing (ACM)	All fields as per reference ACI	M	
PRACK	>				
	<	200 OK (Prack)			

Label	Successful Call Set-Up			Part
S3	Enbloc (Pre ACM)			1 of 1
	Sequence		Exceptions	
Invite (IAM + SDF	P) >		All fields as per reference IAM	
	<	100 Trying		
	<	183 SDP		
PRACK	>			
	<	200 OK(Prack)		

Label		Successful Call Set-Up				
S4		Enbloc (Po	ost ACM)	1 of 1		
	Sequ	ence	Exceptions			
Invite (IAM + S	SDP) >		All fields as per reference IAM			
`	´ <	100 Trying	·			
	<	183 SDP				
PRACK	>					
	<	200 OK(Prack)				
	<	180 Ringing (ACM)	All fields as per reference ACM	M		
PRACK	>					
	<	200 OK (Prack)				
In-Band	In-Band Tone or Announcement					

Label		Successful Call Set-Up Pa				
S 5		Call With Basic Service Marks			1 of 1	
	Sequ	iend	ce	Exceptions		
Invite (IAM + SDP) >				All fields as per reference IAM (CPC=11 For calls with priority		
		<	100 Trying			
		<	183 SDP			
PRACK	;	>				
	•	<	200 OK(Prack)			
	•	<	183 (INR)	Basic Service Marks Request		
PRACK	ļ	>				
		<	200 OK(Prack)			
INFO(INF)	;	>		Basic Service Marks		
		<	200 OK(info)			
	ı	<	180 Ringing (ACM)	All fields as per reference ACN	Л	
PRACK	:	>				
		<	200 OK (Prack)			
Ir	n-Band I	Ring	g Tone			

Label			Successful	Call Set-Up	Part
S 6			ISDN Dat	a Enbloc	1 of 1
	Seq	uence	•	Exceptions	
Invite (IAM + S	DP)	>		All fields as per reference IAM (CPC=11 For calls with priority	
		<	100 Trying		
		<	183 SDP		
PRACK		>			
		<	200 OK(Prack)		
		<	183 (ACM)	All fields as per reference ACN	Л
PRACK		>			
		<	200 OK(Prack)		
		<	200 OK (ANM)	All fields as per reference ANI	Л
ACK		>			
	ata Tra	nsmis	ssion		

Label	Successful Call Set-Up					
S7		ISDN Speech Enbloc				
	Se	quenc	e	Exceptions		
Invite (IAM + S	SDP)	>		All fields as per reference IAM (CPC=11 For calls with priority		
		<	100 Trying			
		<	183 SDP			
PRACK		>				
		<	200 OK(Prack)			
		<	183 (ACM)	All fields as per reference ACN	Л	
PRACK		>				
		<	200 OK(Prack)			
		<	180 Ringing (CPG)	All fields as per reference CPC	3	
PRACK		>				
		<	200 OK (Prack)			
In-Band	d Tone	or An	nouncement			

Label	Unsuccessful Call Set-Up			Part
U1	User Busy			1 of 1
	Sequence		Exceptions	
	<	600 (REL)	Cause Indicator = 17 (Busy)	
ACK	>			

Label	Unsuccessful Call Set-Up			Part
U2	Destination Out Of Order			1 of 1
	Sequence		Exceptions	
	<	480 (REL)	Cause Indicator = 27 (Destination of Order)	ation Out
ACK	>		•	

Label	Unsuccessful Call Set-Up			Part
U3	Unallocated Number			
	Sequence		Exceptions	
	<	404 (REL)	Cause Indicator = 1 (Unalloca Number)	ited
ACK	>		•	

Label	Unsuccessful Call Set-Up			Part
U4	Incompatible Destination			1 of 1
	Sequence		Exceptions	
	 488 (REL) Cause Indicator = 88 (Incompatible Destination) 			atible
ACK	>		*	

Label	Unsuccessful Call Set-Up			Part
U5	Address Incomplete			
	Sequence		Exceptions	
	<	484 (REL)	Cause Indicator = 28 (Address Incomplete)	3
ACK	>		,	

Label		Unsuccessful Call Set-Up		
U6		Normal Unspecified		
	Sequence		Exceptions	
	<	480 (REL)	Cause Indicator = 31 (Normal, Unspecified)	,
ACK	>			

Label		Unsuccessful Call Set-Up Par		
U7	Service Not Available 1 of 1			1 of 1
	Sequence		Exceptions	
	<	403 (REL)	Cause Indicator = 63 (Service Not Available)	ce / Option

Label	Unsuccessful Call Set-Up			Part
U8	Е	Bearer Capability Not Implemented 1 of		
	Sequence		Exceptions	_
	<	501 (REL)	Cause Indicator = 65 (Bearer not implemented)	Capability
ACK	>			

Label	Call Progression			Part
P1		Answe	red Call	1 of 1
	Sequence		Exceptions	
	<	200 OK Invite (ANM)	All fields as per reference ANN	Л
ACK	>	, ,		
In-E	Band Commu	nication		

Label	Call Progression			Part
P2		Suspend	/ Resume	1 of 1
	Sequence	•	Exceptions	
In-E	Band Commu	nication		
		1 st Party r	elease	
	<	INFO (SUS)	Called party goes on hook	
200 OK (INF	(O) >			
	<	INFO (RES)	Called party goes off hook	
200 OK (INF	(O) >			
	<	INFO (SUS)	Called party goes on hook	
200 OK (INF	(O) >			
		Last Party release		
INFO (SUS	S) >			
	<	200 OK (INFO)		
INFO (RES	S) >			
	<	200 OK (INFO)		

Label		Call Termination Part			Part
T1			End User	Release	1 of 1
	Sequence Exceptions				
In-Band Communication					
	1 st Party release				
Bye (REL)				Cause Indicator = 16 (Norma	l Call
Bye (INCL)	l	>		Clearing)	
		<	200 OK Bye (RLC)		
	Seq	uend	ce	Exceptions	
			2 nd Party re	lease	
In-Band Communication					
		<	Bye (REL)	Cause Indicator = 16 (Norma Clearing)	l Call
200 OK Bye (F	RLC)	>			

Label		Call Ter	mination	Part
T2		Network	Release	1 of 1
	Sequen	ce	Exceptions	
In-E		nunication		
		(T2a) Backward rele	ease by Network	
	<	Bye (REL)	Cause Indicator = 31 (Norma Unspecified)	l,
200 OK Bye (F	RLC) >		,	
		(T2a) Forv	vard release by Network	
Bye (REL)	>		Cause Indicator = 31 (Normal Unspecified)	,
	<	200 OK Bye (RLC)		
		(T2b) Backward rele		
	<	Bye (REL)	Cause Indicator = 41 (Tempo Failure)	orary
200 OK Bye (F	RLC) >	(TOL) F	amorand nataona day Nietovada	
		(12b) F	orward release by Network Cause Indicator = 41 (Tempor	rorv
Bye (REL)	>		Failure)	laly
	<	200 OK Bye (RLC)	,	
	•		ackward release by Network	
	<	Bye (REL)	Cause Indicator = 19 (No ansuser)	swer from
200 OK Bye (F	RLC) >		,	
		(T2c) Fo	orward release by Network	
Bye (REL)	>		Cause Indicator = 19 (No ans user)	wer from
	<	200 OK Bye (RLC)		
		(T2d) Ba	ckward release by Network	
	<	Bye (REL)	Cause Indicator = 16 (Norma Clearing)	I Call
200 OK Bye (F	RLC) >	/ 		
		(T2d) For	rward release by Network	
Bye (REL)	>		Cause Indicator = 16 (Norma Clearing)	ai Call
	<	200 OK Bye (RLC)	5 /	
	•		ward release by Network	
	<	Bye (REL)	Cause Indicator = 18 (No use responding)	r
200 OK Bye (F	RLC) >			
) - (c	,	(T2f) Backy	ward release by Network	
	<	480	Cause Indicator = 31 (Norma	l,
4 017	`	700	Unspecified)	
ACK	>			

Label	Miscellaneous Sequences Par			Part
M1		Ring Back	When Free	1 of 3
	Sequen	ce	Exceptions	
		Initial C	all	
Invite (IAM + S	SDP) >		All fields as per reference IAM	1
	<	100 Trying		
	<	183 (SDP)		
PRACK	>			
	<	200 OK (Prack)		
4.014	<	600 (REL)	Reason 17 (User busy)	
ACK	>			
		Invoking the		
Invite (IAM + S	SDP) >		Encapsulated Application Info DPNSS Call	rmation =
	<	100 Trying		
	<	183 (SDP)		
PRACK	>	000 01((5 1)		
	<	200 OK (Prack)		
	<	183 (APM)	Encapsulated Application Info Legacy Data Transfer Availab	
PRACK	>			
	<	200 OK (Prack)		
INFO (APM	l) >	000 014 (1.4.)	(ISRM OLI, CBWF Request)	
	<	200 OK (Info)	(OIM AOK THE DOM: 11 TO	
DD A OK	<	183 (APM)	(CIM: ACK, TLI, Destination E	susy)
PRACK	>	200 OK (Prook)		
	<	200 OK (Prack) 480 (REL)	Reason 16 (Normal Call Clea	ring)
ACK	< >	400 (INLL)	Neason 10 (Normal Call Clea	11119)
AOR				Contd

Label	Miscellaneous Sequences			Part
M1		Ring Back When	n Free (Contd)	2 of 3
	Sequen	ce	Exceptions	
Called Customer Clears down				
	<	Invite (IAM + SDP)	Encapsulated Application Info DPNSS call	rmation =
100 Trying	>			
183 (APM)	>		Encapsulated Application Info Legacy Data Transfer Availab	
	<	PRACK		
200 OK (Prad	ck) >			
	<	INFO (APM)	(ISRM, OLI, CBWF Notificatio	n)
200 OK (Info	,			
183 (APM)	>		(CIM:ACK)	
	<	PRACK		
200 OK (Prac	ck) >			
480 (REL)	>	4.017	Reason 16 (Normal Call Clear	ring)
	<	ACK		0
				Contd

Label		Miscellaneous	s Sequences	Part
M1		Ring Back Whe	n Free (Contd)	3 of 3
	Sequen	ce	Exceptions	
	Ri	ng Back from Origin	ating Call Server	
Invite (IAM + S	DP) >		Encapsulated Application Info DPNSS call	rmation =
	< <	100 Trying 183 (SDP)		
PRACK	>	000 01((D 1)		
	<	200 OK (Prack)	Engangulated Application Info	rmation
DD 4 014	<	183 (APM)	Encapsulated Application Info DPNSS call	imation =
PRACK	> <	200 OK (Prack)		
INFO (APM		200 OK (1 146K)	Encapsulated Application Info Legacy Data Transfer Availab	
	<	200 OK (Info)		
_	<	183 (APM)	(ISRM OLI, CBWF Setup)	
PRACK	>	000 OK (Dariet)		
	<	200 OK (Prack) 180 (ACM)		
PRACK	< >	100 (ACIVI)		
110101	<	200 OK (Prack)		
		Calling Custome	er Answers	
	Ring	g Tone		
INFO (APM) >		(EEM: Ring out)	
	<	200 OK	(FF14 0D0 0 !! 5 ! 6	
	<	183 (APM)	(EEM: CBC - Call Back Comp	lete)
PRACK	>	200 OK (Prack)		
	<	200 OK (Flack) 200 OK Invite		
	<	(ANM)		
ACK	>	,		
		versation		
Bye (REL)			Reason 16 (Normal Call Clear	ring)
	<	200 OK Bye (RLC)		

Label		Miscellaneous Sequences Part			
M2	Malicious Call Intercept			1 of 1	
			•		
	Sequen	ce	Exceptions		
	With Auto Release				
	<	200 OK Invite (ANM)	All fields as per reference ANI	М	
ACK	>				
In-E	Band Comm	unication			
Bye (REL)	>		Cause Indicator = 16 (Normal Clearing)	Call	
	<	200 OK Bye (RLC)	_,		
		Without Auto Rele	ase Disabled		
	<	200 OK Invite (ANM)	All fields as per reference ANI	М	
ACK	>				
In-E	Band Comm	unication			
INFO (SUS	5) >				
	<	Bye (REL)	Cause Indicator = 16 (Normal Clearing)	Call	
200 OK Bye (F	RLC)				

6.2 UK-ISUP Message Library

6.2.1 Message Library Key

Bol d	Parameter Name
	Mandatory Fixed Parameters
	Mandatory Variable Parameters
	Optional Parameters

6.2.2 Message Library

Commences on next page.

	IAM		
Field Name	Value Binary	Нех	Meaning
Message Type	00000001	01	0x1
Nature of Connection Indicators	(NCI)		
Satellite Indicator	00	00	No satellite circuit
Continuity Check Indicator	00		Cont Check Not reqd
Echo Control Device Ind	0		O/G half echo ctrl Not reqd
Spare	0 0 0		
Forward Call Indicators (FCI)			
National/International Ind	0	20	Treat as national Call
End-to-End Method Ind	0 0 -		No e-to-e method Available
Interworking Indicator	0		No I/W encountered
End-to-End Information Ind	0		No end-to-end info Available
ISDN User Part Indicator	1		ISDN-UP used all the way
ISDN-UP Preference Ind	0 0		ISDN-UP preferred all the way
ISDN Access Indicator	1	01	Originating access ISDN
SCCP Method Indicator	00-		No indication
Spare	00 0 0 0	0.4	
Calling Party Category	00001010	0A	Ordinary Calling Subscriber
Transmission Medium	00000000	00	Speech
Requirement			
Pointer to Called Party Number	00000010	02	2
Pointer to Optional Parameters	00001010	0A	10
Called Party Number			
Parameter Length	00001000	80	8
Nature of Address	-0000011	03	National (Significant) Number
Odd/Even Indicator	0		Even Number of address signals
Spare	0000	10	
Numbering Plan Indicator	- 001		ISDN Number plan (E.164)
Internal Network No. Ind	0		Routing to INN allowed
Called Address Signals	*****		XXXXXXXXXX

IAM (Contd)			
Field Name	Value Binary	Hex	Meaning
User Service Information			
Parameter Name	00011101	1D	User Service Information
Parameter Length	00000011	03	3
Info Transfer Capability	00000	80	Speech
Coding Standard	-00		CCITT standardised coding
Extension Indicator 1	1		Last octet
Information Transfer Rate	10000	90	64Kbs
Transfer Mode	- 00		Circuit mode
Extension Indicator 2	1		Last octet
User Info Layer 1 Protocol	00011	A3	G.711 A-law
Layer Identification	- 01		User info layer 1 protocol
Extension Indicator 3	1		Last octet
Calling Party Number			
Parameter Name	00001010	0A	Calling Party Number
Parameter Length	00000111	07	7
Nature of Address	-0000011	03	National (Significant) Number
Odd/Even Indicator	0		Even Number of address signals
Screening Indicator	11	13	Network provided
Presentation Restriction Ind	00		Presentation allowed
Numbering Plan Ind	- 001		ISDN Number plan (E.164)
Calling Number Incomplete Ind	0		Complete
Calling Address Signals	* * * * * * *		XXXXXXXXXX
Access Transport			
Parameter Name	00000011	03	Access transport
Parameter Length	00000100	04	4
High Layer Compatibility			
IE Name	01111101	7D	High layer compatibility
IE Length	00000010	02	2
Presentation Method	01	91	High layer protocol profile
Interpretation	100		First HL character to be used
Coding Standard	- 00		CCITT
Extension Bit (Octet 3)	1		Octet is Not continued
High Layer Characteristics	- 0000001	81	Telephony
Extension Bit (Octet 4)	1		Octet is Not continued

IAM (Contd)				
Field Name	Value		Meaning	
Tield Name	Binary	Hex	weaming	
National Forward Call Indicators				
Parameter Name	11111110	FE	National forward Call indicators	
Parameter Length	00000010	02	2	
CLI Blocking Indicator	1	01	CLI blocking 'Available'	
Network translated Address Indicator	0 -		No Information	
Spare	000000			
Spare	00000000	00		
Parameter Compatibility				
Information				
Parameter Name	00111001	39	Parameter compatibility	
Parameter Length	0000010	02	2	
1st Upgraded Parameter	11111110	FE	254	
Transit Intermediate Exchange	0	C0	Transit interpretation	
Release Call Indicator	0 -		Do Not Release Call	
Send Notification Indicator	0		Do Not send Notification	
Discard Message Indicator	0		Do Not discard Message	
Discard Parameter Indicator	0		Do Not discard parameter	
Pass On Not Possible Indicator	- 10		Discard parameter	
Extension Indicator	1		Last octet	
End of Optional Parameters				
Parameter Name	00000000	00	End of optional parameters	

ACM			
Field Name	Value		Meaning
	Binary	Hex	
Message Type	0000011	06	0x6
	0		
Backward Call Indicators (BCI)			
Charge Indicator	1 0	16	Charge
Called Party Status Indicator	01		Subscriber Free
Called Party Category	01		Ordinary subscriber
End-to-End Method Indicator	00		No e-to-e method Available
Interworking Indicator	0	14	No interworking encountered
End-to-End Information Indicator	0-		No end-to-end info. Available
ISDN User Part Indicator1			ISDN-UP used all the way
Holding Indicator 0			Holding Not requested
ISDN Access Indicator 1			Terminating access ISDN
Echo Control Device Indicator	0		I/C half echo ctrl Not reqd
SCCP Method Indicator	00		No indication
Pointer to Optional Parameters	00000000	00	0

CPG			
Field Name	Value		Mooning
Field Name	Binary	Hex	Meaning
Message Type	0010110	2C	0x2C
	0		
Event Information			
Event Indicator	-0000001	01	Alerting
Event Presentation Indicator	0		No indication
Pointer to Optional Parameters	000000000	00	0

ANM			
Field Name	Value		Meaning
rieiu ivaille	Binary	Hex	Wearing
Message Type	00001001	09	0x9
Pointer to Optional Parameters	0000001	01	1
Backward Call Indicators (BCI)			
Parameter Name	00010001	11	Backward Call Indicators
Parameter Length	00000010	02	2
Charge Indicator	10	02	Charge
Called Party Status Indicator	00		No indication
Called Party Category	00		No indication
End-to-End Method Indicator	0 0		No e-to-e method Available
Interworking Indicator	0	14	No interworking encountered
End-to-End Information Indicator	0 -		No end-to-end info. Available
ISDN User Part Indicator	1		ISDN-UP used all the way
Holding Indicator	0 Holding Not requested		Holding Not requested
		Terminating access ISDN	
		I/C half echo ctrl Not reqd	
SCCP Method Indicator	00		No indication
End of Optional Parameters			
Parameter Name	00000000	00	End of optional parameters

6.3 SCTP Message Format

SCTP			
Field Name	Valu	е	Mooning
rieiu Naille	Binary	Hex	Meaning
Source port	0001 0011	13 C4	5060
	0110 0100		
Destination port	0001 0011	13 C4	5060
	0110 0100		
Verification tag			0x0001fd99
DATA chunk			
Chunk type: Data	0	00 03	Bit: Stop processing of the packet
	-0		Bit: Do not report
Chunk flags	1		E-bit: Last segment
	1-		E-bit: First segment
	0		U-bit: Ordered delivery
Chunk length	0000 0100	04 E2	1250
-	1100 0010		
TSN		F5 A5	Transaction Sequence Number
Stream Idebtifier			0x0000
SSN		45 C6	Stream sequence Number
Payload protocol identifier			Not Specified

6.4 SIP Message Formats

	SIP
Field Name	Example of contents
Request-Line:	INVITE sip:+441508550299@cs555.pstn.bt.uktel.org.uk;user=phone SIP/2.0
Method:	INVITE
Message Header	
To:	<sip:+441508550299@cs555.pstn.bt.uktel.org.uk;user=phone></sip:+441508550299@cs555.pstn.bt.uktel.org.uk;user=phone>
SIP to address:	sip:+441508550299@cs555.pstn.bt.uktel.org.uk
From:	<sip:+448003289393@cs554.pstn.bt.uktel.org.uk;user=phone>;tag=35ri6bzvn3x</sip:+448003289393@cs554.pstn.bt.uktel.org.uk;user=phone>
SIP from address:	sip:+448003289393@cs554.pstn.bt.uktel.org.uk
SIP tag:	35ri6bzn3x
Contact:	<sip:+448003289393@10.92.150.2;transport=sctp></sip:+448003289393@10.92.150.2;transport=sctp>
Contact Binding:	<sip:+448003289393@10.92.150.2;transport=sctp></sip:+448003289393@10.92.150.2;transport=sctp>
URI:	<sip:+448003289393@10.92.150.2;transport=sctp></sip:+448003289393@10.92.150.2;transport=sctp>
SIP contact	sip:+448003289393@10.92.150.2
address:	SIP.+440003209393@10.92.130.2
Max-Forwards:	29
Call-ID:	tlbuzl2rw1941k@10.92.150.2
CSeq:	31772 INVITE
Via:	
Transport:	SCTP
Sent-by Address:	cs554.pstn.bt.uktel.org.uk
Sent-by port:	5060
Branch:	z9hG4bKp2v5761rmj9t4dchmw4
Allow:	INVITE,ACK,CANCEL,BYE,OPTIONS,PRACK,UPDATE,INFO
Require:	100rel
P-Asserted-Identity:	<sip:+441473640000@cs554.pstn.bt.uktel.org.uk;user=phone></sip:+441473640000@cs554.pstn.bt.uktel.org.uk;user=phone>
P-Charging-Vector:	icid-value=000000MfSN;icid-generated-at=10.92.140.0;orig-
	ioi=pstn.bt.uktel.org.uk
Content-Type:	multipart/mixed;boundary=hrcfvlrb-1507920182
Content-Length:	454
MIME-Version:	1.0
Message Body	
MIME Multipart Media	
Encapsulation	
Type:	multipart/mixed
First boundary:	hrcfvlrb-1507920182\r\n
Encapsulated	
multipart part:	
Content-Type:	application/sdp\r\n\r\n
	Contd

SIP (Contd)		
Session Description		
Protocol		
SDP Version (v):	0	
Owner/Creator, Session Id (o):		
Owner Username:	•	
Session ID:	287473284892629225	
Session Version:	1	
Owner Network Type:	IN	
Owner Address Type:	IP4	
Owner Address:	cs554.pstn.bt.uktel.org.uk	
Session Name (s):	•	
Connection Information (c):	IN IP4 10.92.202.202	
Connection Network Type:	IN	
Connection Address Type:	IP4	
Connection Address:	10.92.202.202	
Time Description, active time (t):		
Session Start Time:	0	
Session Stop Time:	0	
Media Description, name and		
address (m):		
Media Type:	audio	
Media Port:	43814	
Media Proto:	RTP/AVP	
Media Format:	ITU-T G.711 PCMA	
Bandwidth Information (b):		
Bandwidth Modifier:	AS [Application Specific (RTP session bandwidth)]	
Bandwidth Value:	64 kb/s	
Media Attribute (a):		
Media Attribute Fieldname:	rtpmap	
Media Format:	8	
MIME Type:	PCMA	
Media Attribute (a):		
Media Attribute Fieldname:	ptime	
Media Attribute Value:	10	
Boundary:	\r\nhrcfvlrb-1507920182\r\n	

6.5 SIP CLI Formats

CLI Display	
From:	+441508550299@cs554.pstn.bt.uktel.org.uk;user=phone>
P-Asserted Identity	+441508550299@cs554.pstn.bt.uktel.org.uk;user=phone>
CLI Withheld	
From:	anonymous@anonymous.invalid
Privacy: Id	
P-Asserted Identity	+441508550299@cs554.pstn.bt.uktel.org.uk;user=phone>
CLI Unavailable	
From:	unavailable@cs554.pstn.bt.uktel.org.uk
P-Asserted Identity	
CLI Presentation Number Di	splay
From:	+44800328393@cs554.pstn.bt.uktel.org.uk;user=phone>
P-Asserted Identity	+441508550299@cs554.pstn.bt.uktel.org.uk;user=phone
	>

6.6 UK-ISUP Basic Service Marks

The Basic Service Marks will be used by the OSS Assistant to display the facilities not enabled for the calling party. Mnemonics will be displayed for the line facility and hint text will be available for further help. Below is a list of acceptable mnemonics:

INB	International Calls are Barred
NCB	National Calls are Barred
LCB	Local Calls are Barred
STS	Temporarily out of Service
СОВ	Calls to Operator are Barred
SFB	Supplementary Facilities are Barred
IBO	Incoming Operator Calls only
CIB	(Customer Controlled) Incoming Calls Barred
SOB	Outgoing Calls are permanently Barred
PIB	(Network Controlled) Incoming Calls are Barred

History

Document History			
Version	Date	Milestone	
1.4.2	29/10/09	TSG/CA Approved	