

# TCAP ITU/ETSI/TTC/Chinese TTC 1997

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## STATEMENT OF COMPLIANCE

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# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Concept	1
<b>2</b>	<b>Compliance Lists</b>	<b>3</b>
2.1	Transaction Capabilities Applicat. Part (TCAP), ITU-T Q.77X	3
2.2	Transaction Capabilities Applicat. Part (TCAP), ITU-T Q.75X	15
2.3	TRANSACTION CAPABILITIES APPLICAT. PART (TCAP), TTC JT-Q77X	19
<b>3</b>	<b>Notes</b>	<b>21</b>
<b>4</b>	<b>Glossary</b>	<b>23</b>





# 1 Introduction

This document describes how Ericsson Signaling TCAP ITU / ETSI / TTC / Chinese version complies with the TTC standards of 1997 specified in the following documents:

- JT-Q771 1997, Function Description of Transaction Capabilities
- JT-Q772 1997, Transaction Capabilities Information Element Definitions
- JT-Q773 1997, Transaction Capabilities Formats and Encoding
- JT-Q774 1997, Transaction Capabilities Procedures

Note however that the TTC standard specifications conform to the draft texts ITU-T Recommendation Q.771(to Q.774), studied at ITU-T SG11 meeting in February 1996. Regardless of this they are here treated as conferment against ITU-T (06/97).

For reasons of clarity, compliance with the ITU-T (06/97) recommendations detailed in the following documents are also described, as the TTC standard in practice is based on these:

- Monitoring and Measurements for Signaling System No.7 Networks, ITU-T Q.752 (06/97)
- Signaling System No.7 – Function Description of Transaction Capabilities, ITU-T Q.771 (06/97)
- Signaling System No.7 – Transaction Capabilities Information Element Definitions, ITU-T Q.772 (06/97)
- Signaling System No.7 – Transaction Capabilities Formats and Encoding, ITU-T Q.773 (06/97)
- Signaling System No.7 – Transaction Capabilities Procedure, ITU-T Q.774 (06/97)
- Signaling System No.7 – Guidelines for Using Transaction Capabilities, ITU-T Q.775 (06/97)

## 1.1 Concept

This section will explain the different concepts that will be used in the compliance lists. The terms that are used are:

- C** Ericsson module complies with the specified paragraph in the standard.

- |          |   |
|----------|---|
| <b>N</b> | Ericsson module does not comply with the specified paragraph in the standard.   |
| <b>P</b> | Ericsson module complies partly with the specified paragraph in the standard. Specify in a note what in the module that does comply and what that does not. |
| -        | There is nothing to implement in the referred paragraph (used in column "C").   |



## 2 Compliance Lists

### 2.1 Transaction Capabilities Applicat. Part (TCAP), ITU-T Q.77X

#### 2.1.1 ITU-T Q.771, Function Description of TCAP

*Table 1 ITU-T Q.771, Function Description of TCAP*

References		C	N	P	Comments
1	Introduction	-			
1.1	General	X			
1.2	Contents of the rec. Q771-Q.775	-			
1.3	Objectives	-			
1.3.1	Definition of Transaction Capabilities	X			
1.3.2	Scope of Transaction Capabilities	X			
2.	Overview	-			
2.1	Terminology	-			
2.2	Structure of TC	-			
2.2.1	Architectural concepts	X			
2.2.2	Addressing issues	X			
2.2.3	Management aspects			X	Note 8
2.2.4	Alignment of TCAP with Rec.X.219 and X.229 (ROSE)	X			
2.2.5	Alignment of TCAP with Rec. X.217 and X.227 (ACSE)	X			
2.3	TC based on a Connectionless Network Service	-			
2.3.1	Service provided by the Component sub-layer	-			
2.3.1.1	Component	X			
2.3.1.2	Dialogue	X			
2.3.1.2.1	Unstructured dialogue	X			
2.3.1.2.2	Structured Dialogue	X			
2.3.1.2.3	Component Correlation	X			

*Table 1 ITU-T Q.771, Function Description of TCAP*

References		C	N	P	Comments
2.3.1.3	Error Handling	X			
2.3.2	Service Provided by the Transaction Sub-Layer	X			
2.3.2.1	Unstructured Dialogue	X			
2.3.2.2	Structured Dialogue	X			
3.	Service provided by TC based on a connectionless network service	-			
3.1	Component sub-layer	-			
3.1.1	Overview of Component sub-layer primitives	X			
3.1.2	Dialogue handling	X			
3.2.2.1	Definition of parameters	X			
3.1.2.2	Dialogue facilities	X			
3.1.2.2.1	Unstructured dialogue	X			
3.1.2.2.2	Structured dialogue	X			
3.1.2.2.2.1	Beginning of a dialogue	X			
3.1.2.2.2.2	Confirmation of the dialogue	X			Note 17
3.1.2.2.2.3	Continuation of the dialogue	X			
3.1.2.2.2.4	End of a dialogue	X			Note 17
3.1.2.2.3	Exception Reporting and Message Return	X			
3.1.3	Component handling	-			
3.1.3.1	Definition of parameters	X			
3.1.3.2	Operation invocation	X			
3.1.3.3	Report of success	X			Note 4
3.1.3.4	Report of failure	X			
3.1.3.5	Reject by the TC-user	X			
3.1.3.6	Cancel of an operation	X			
3.1.3.7	Reset of an Operation Invocation	X			
3.1.3.8	Grouping of components inside a Message	X			
3.1.4	Abnormal situations	-			
3.1.4.1	Reject of a component by the Component sub-layer	X			





*Table 1 ITU-T Q.771, Function Description of TCAP*

References		C	N	P	Comments
3.1.4.2	Dialogue abort	X			
3.1.5	Component states and state transition diagrams			X	Note 12
3.1.6	Mapping of Component sub-layer onto Transaction sub-layer	X			
3.2	Transaction sub-layer	-			
3.2.1	Overview of the Transaction sub-layer primitives	X			
3.2.2	Information transfer in unstructured dialogue	X			
3.2.3	Transaction begin	X			
3.2.4	Transaction continuation	-			
3.2.4.1	Confirmation of the transaction	X			Note 17
3.2.4.2	Continuation of the transaction	X			
3.2.4.3	State transitions	X			
3.2.5	Transaction end	X			Note 17
3.2.5.1	Pre-arranged end	X			
3.2.5.2	Basic end	X			
3.2.5.3	Transaction abort by the TR-user	X			
3.2.6	Abnormal situations	-			
3.2.6.1	Abort by the Transaction sub-layer	X			
3.2.7	Exception Reporting and Message Return	X			
3.3	Services assumed from the connectionless network layer	X			

## 2.1.2 ITU-T Q.772, TCAP Information Element Definitions

*Table 2 ITU-T Q.772, TCAP Information Element Definitions*

References		C	N	P	Comments
1.	General	X			
2.	Transaction portion	-			
2.1	Message type	-			
2.1.1	unidirectional	X			

*Table 2 ITU-T Q.772, TCAP Information Element Definitions*

References		C	N	P	Comments
2.1.2	begin	X			
2.1.3	end	X			
2.1.4	continue	X			
2.1.5	abort	X			
2.2	Transaction IDs	X			
2.2.1	originating transaction ID	X			
2.2.2	destination transaction ID	X			
2.3	P-abort cause	X			
2.3.1	unrecognized message type	X			
2.3.2	unrecognized transaction ID	X			
2.3.3	badly formatted transaction portion	X			
2.3.4	incorrect transaction portion	X			
2.3.5	resource limitation	X			
2.4	dialogue portion	X			
2.5	component portion	X			
3.	Component Portion	X			
3.1	Component type	X			
3.1.1	invoke	X			
3.1.2	return result (not last)	X			
3.1.3	return result (last)	X			
3.1.4	return error	X			
3.1.5	reject	X			
3.2	invoke ID	X			
3.3	linked ID	X			
3.4	operation code	X			
3.5	parameter	X			
3.6	error code	X			
3.7	problem code	X			
3.7.1	general problem	X			
3.7.1.1	unrecognized component	X			
3.7.1.2	mistyped component	X			
3.7.1.3	badly structured component	X			



*Table 2 ITU-T Q.772, TCAP Information Element Definitions*

<b>References</b>		<b>C</b>	<b>N</b>	<b>P</b>	<b>Comments</b>
3.7.2	invoke problem	X			
3.7.2.1	duplicate invoke ID	X			
3.7.2.2	unrecognized operation	X			
3.7.2.3	mistyped parameter	X			
3.7.2.4	resource limitation	X			
3.7.2.5	initiating release	X			
3.7.2.6	unrecognized linked ID	X			
3.7.2.7	linked response unexpected	X			
3.7.2.8	unexpected linked operation	X			
3.7.3	return result problem	X			
3.7.3.1	unrecognized invoke ID	X			
3.7.3.2	return result unexpected	X			
3.7.3.3	mistyped parameter	X			
3.7.4	return error problem	X			
3.7.4.1	unrecognized invoke ID	X			
3.7.4.2	return error unexpected	X			
3.7.4.3	unrecognized error	X			
3.7.4.4	unexpected error	X			
3.7.4.5	mistyped parameter	X			
4.	Dialogue portion	X			
4.1	Dialogue Control APDUs	X			
4.1.1	Dialogue Request (AARQ) APDU	X			
4.1.2	Dialogue Response (AARE) APDU	X			
4.1.3	Dialogue Abort (ABRT) APDU	X			
4.1.4	Dialogue Uni (AUDT) APDU	X			
4.2	Dialogue Portion Information Elements	-			
4.2.1	application context name	X			
4.2.2	protocol version	X			
4.2.3	user information	X			
4.2.4	result	X			

Table 2 ITU-T Q.772, TCAP Information Element Definitions

References		C	N	P	Comments
4.2.5	result source diagnostic	X			
4.2.6	abort source	X			

## 2.1.3 ITU-T Q.773, TCAP Formats and Encoding

Table 3 ITU-T Q.773, TCAP Formats and Encoding

References		C	N	P	Comments
1.	Introduction	X			
2.	Description conventions	-			
3.	Abstract Syntax Description	-			
3.1	TC-Messages	X			
3.2	Dialogue Portion	X			
3.2.1	Structured Dialogue	X			
3.2.2	Unstructured Dialogue	X			
4.	Message representation	X			
4.1	Encoding rules	-			
4.1.1	Specification of Encoding rules	X			
4.1.2	Overview of Encoding Rules	-			
4.1.2.1	General message structure	X			
4.1.2.2	Tag	X			
4.1.2.2.1	Tag class	X			
4.1.2.2.2	From of the element	X			
4.1.2.2.3	Tag code	X			
4.1.2.3	Length of the Contents	X			Note 9
4.1.2.4	Contents	X			
4.1.3	Transmission order	X			
4.2	Message Encoding	-			
4.2.1	Transaction Portion	X			
4.2.1.1	Structure of the Transaction Portion	X			
4.2.1.2	Message Type Tag	X			
4.2.1.3	Transaction ID tags	X			
4.2.1.4	P-Abort Cause tag	X			



*Table 3 ITU-T Q.773, TCAP Formats and Encoding*

References		C	N	P	Comments
4.2.1.5	Dialogue Portion tag	X			
4.2.1.6	Component Portion tag	X			
4.2.2	Component Portion	X			
4.2.2.1	Component type tag	X			
4.2.2.2	Component ID tag	X			
4.2.2.3	Operation Code tag	X			
4.2.2.4	Parameter tag	X			
4.2.2.5	Error Code tag	X			
4.2.2.6	Problem Code	X			
4.2.3	Dialogue Portion	X			
4.2.3.1	Dialogue Control PDUs	X			

## 2.1.4 ITU-T Q.774, TCAP Procedures

*Table 4 ITU-T Q.774, TCAP Procedures*

References		C	N	P	Comments
1.	Introduction	X			
1.1	Basic guideline	X			
1.2	Overview	-			
2.	Addressing	X			
3.	Transaction capabilities based on a connectionless network service	-			
3.1	Sub-layering in TCAP	X			
3.2	Component sub-layer procedures	X			
3.2.1	Normal procedure	-			
3.2.1.1	Component handling procedure	-			
3.2.1.1.1	Mapping of TC component handling service primitives to component types	X			
3.2.1.1.2	Management of invoke IDs			X	Note 13
3.2.1.1.3	Operation classes			X	Note 12
3.2.1.1.4	Sample component flows	X			
3.2.1.2	Dialogue control by TC primitives	X			Note 17

*Table 4 ITU-T Q.774, TCAP Procedures*

References		C	N	P	Comments
3.2.2	Abnormal procedures	-			
3.2.2.1	Dialogue control	X			
3.2.2.2	Abnormal procedures relating to operations	X			
3.2.3	Compatibility issues	X			
3.3	Transaction sub-layer procedures	-			
3.3.1	General	X			
3.3.2	Mapping of TR service primitives to message types	X			
3.3.3	Normal procedures	-			
3.3.3.1	Message transfer without establishing a transaction	-			
3.3.3.1.1	Actions of sending end	X			
3.3.3.1.2	Actions of the receiving end	X			
3.3.3.2	Message transfer within a transaction	-			
3.3.3.2.1	Transaction begin	X			
3.3.3.2.1.1	Actions of the initiating end	X			
3.3.3.2.1.2	Actions of the receiving end	X			
3.3.3.2.2	Transaction continuation	X			
3.3.3.2.3	Transaction termination	X			
3.3.3.2.4	Abort by the TR-user	X			
3.3.3.2.5	Example of message exchange	X			
3.3.3.2.6	Transaction state transition diagrams	X			
3.3.4	Abnormal procedures relating to transaction control	X			

## 2.1.5 ITU-T Q.775, Guidelines for Using TCAP

*Table 5 ITU-T Q.775, Guidelines for Using TCAP*

References		C	N	P	Comments
1.	Introduction	-			
1.1	General	X			
1.2	Environment	X			



Table 5 ITU-T Q.775, Guidelines for Using TCAP

References		C	N	P	Comments
2.	Operations	-			
2.1	Definition			X	Note 13
2.2	Examples	-			
2.2.1	Simple operation handling	X			
2.2.2	More complex operation handling	X			
2.3	Component-related facilities offered to TC-users	-			
2.3.1	Invocation			X	Note 13
2.3.2	Cancel (by the TC-user)	X			
2.3.3	Reject (by the TC-user)	X			
2.3.4	Remote cancel (by the TC-user)	X			Note 10
2.3.5	Reset of operation timer by the TC-user	X			
2.4	Component-related abnormal situations	-			
2.4.1	Component loss	X			
2.4.2	Component duplication	X			
2.4.3	Component missequencing	X			
2.4.4	Reject of a component by TCAP	X			
2.4.5	Operation timer expiry	X			
3.	Dialogues	X			
3.1	Grouping of components in a message	X			
3.2	Dialogue handling facilities	X			
3.2.1	Structured dialogue	-			
3.2.1.1	General	X			
3.2.1.2	Exchange of messages	X			
3.2.1.3	Dialogue end	X			
3.2.1.4	Message-related abnormal situations	X			
3.2.1.5	Relations between dialogue and component handling	X			
3.2.1.6	Addressing issues	X			
3.2.1.7	Quality of Service	X			

Table 5 ITU-T Q.775, Guidelines for Using TCAP

References		C	N	P	Comments
3.2.2	Unstructured dialogue	X			
3.3	Enhanced dialogue control facilities	-			
3.3.1	Overview	X			
3.3.2	Use of the Application-Context	X			
3.3.3	Use of user data			X	Note 14
3.3.4	Backward compatibility issues	X			
4.	Guidance for writing TC-users protocol specifications	-			Note 11
4.1	Introduction	-			Note 11
4.2	Decomposition of functionality	-			Note 11
4.2.1	Application process and application entity	-			Note 11
4.2.2	Application service element	-			Note 11
4.2.3	Communication between peer AEs/ASEs	-			Note 11
4.3	How to specify an application context	-			Note 11
4.4	How to specify an ASE	-			Note 11
4.5	How to specify Operations and Errors	-			
4.5.1	General considerations	-			Note 11
4.5.2	Use of the OPERATION MACRO notation	-			
4.5.2.1	Use of the type notation	-			Note 11
4.5.2.1.1	Specification of the operation argument	-			Note 11
4.5.2.1.2	Specification of positive outcomes	-			Note 11
4.5.2.1.3	Associated Errors	-			Note 11
4.5.2.1.4	Specification of linked operations	-			Note 11
4.5.2.2	Use of the value notation	-			Note 11
4.5.2.3	Specification of timers	-			Note 11
4.5.3	Use of the ERROR MACRO notation	-			Note 11
4.5.4	Use of the (information object) CLASS notation	-			Note 11





*Table 5 ITU-T Q.775, Guidelines for Using TCAP*

<b>References</b>		<b>C</b>	<b>N</b>	<b>P</b>	<b>Comments</b>
4.5.4.1	The OPERATION (information object) CLASS	-			
4.5.4.1.1	Specification of the operation argument	-			Note 11
4.5.4.1.2	Specification of the operation result	-			Note 11
4.5.4.1.3	Specification of positive outcomes	-			Note 11
4.5.4.1.4	Associated errors	-			Note 11
4.5.4.1.5	Specification of the linked operations	-			Note 11
4.5.4.1.6	Synchronous nature of the operations	-			Note 11
4.5.4.1.7	Operation code	-			Note 11
4.5.4.1.8	Classes of operation	-			Note 11
4.5.4.1.9	Specification of timers	-			Note 11
4.5.5	The ERROR (information object) CLASS	-			Note 11
4.5.5.1	Specification of the parameter accompanying an error	-			Note 11
4.5.5.2	Error code	-			Note 11
4.5.6	Examples of Operations and Errors description	-			
4.5.6.1	Operations and Errors purposes	-			Note 11
4.5.6.1.1	Provide routing information	-			Note 11
4.5.6.1.2	Get calling party number	-			Note 11
4.5.6.1.3	Invalid called number	-			Note 11
4.5.6.1.4	Subscriber not reachable	-			Note 11
4.5.6.1.5	Called barred	-			Note 11
4.5.6.1.6	Calling party number not available	-			Note 11
4.5.6.1.7	Processing failure	-			Note 11
4.5.6.2	ASN.1 specification	-			Note 11
4.5.7	Moving from the MACRO notation to the (information object) CLASS notation and use of ANS.1 modules	-			Note 11
4.5.8	Allocation and Management of Operation and Error Codes	-			
4.5.8.1	General considerations	-			Note 11

Table 5 ITU-T Q.775, Guidelines for Using TCAP

References		C	N	P	Comments
4.5.8.2	Import and Export of Operations and Errors	-			Note 11
4.5.8.3	Impact of ASE/AE structure on operation and error code administration	-			Note 11
4.5.8.3.1	Monolithic approach - One AC, one ASE	-			Note 11
4.5.8.3.2	One AC comprising more than one ASE	-			Note 11
4.5.8.4	Re-use of operation and errors	-			Note 11
4.6	Data types specifications	-			
4.6.1	General				Note 11
4.6.2	Use of tags	-			Note 11
4.6.3	Instances and types	-			Note 11
4.6.4	Exporting and importing data types	-			Note 11
4.7	How to specify abstract syntaxes	-			Note 11
4.8	Encoding rules	-			Note 11
5.	Mapping of the generic ROS concepts onto TC services	-			
5.1	Overview	-			Note 11
5.1.1	Notation and concept for the generic ROS model	-			Note 11
5.1.2	Communication model	-			Note 11
5.2	Remote operation service realization	-			
5.2.1	Basic services (stub)	-			Note 11
5.2.2	Bind and unbind operations	-			Note 11
5.2.2.1	Bind operation	-			Note 11
5.2.2.1.1	Invoking a bind operation	-			Note 11
5.2.2.1.2	Responding to a bind operation	-			Note 11
5.2.2.2	Unbind operations	-			
5.2.2.2.1	Invoking an unbind operation	-			Note 11
5.2.2.2.2	Responding to an unbind operation	-			Note 11
5.3	Information transfer	-			
5.3.1	Association realizations	-			Note 11



*Table 5 ITU-T Q.775, Guidelines for Using TCAP*

References		C	N	P	Comments
5.3.2	Transfer realization	-			Note 11
5.4	TC-based application context	-			Note 11
5.5	Abstract syntaxes	-			
5.5.1	Dialogue control	-			Note 11
5.5.2	User-defined syntaxes	-			
5.5.2.1	General	-			Note 11
5.5.2.2	Defining the abstract syntaxes	-			Note 11
5.6	Notation extension	-			Note 11

## 2.2 Transaction Capabilities Applicat. Part (TCAP), ITU-T Q.75X

### 2.2.1 ITU-T Q.752, Monitoring and Measurements

*Table 6 ITU-T Q.752, Monitoring and Measurements*

Reference		C	N	P	Comments
1.	Introduction	-			
11	General	-			
1.2	Network View	-			
1.3	Guidelines for Uses of Measurements	-			
1.4	Grouping of Measurements			x	Note 1, Note 3
1.5	Collection of Measurements	-			
1.6	Definition of Terms	-			
1.6.1	Fault			X	Note 2
1.6.2	Configuration	X			
1.6.3	Performance	X			
1.6.4	Accounting	-			Note 3
1.6.5	Network Administration and Planning	X			
1.6.6	Near Real Time Measurements	X			
1.7	Listing of Measurements	-			
1.7.1	General	-			

*Table 6 ITU-T Q.752, Monitoring and Measurements*

Reference		C	N	P	Comments
1.7.1.1	<no heading>	-			
1.7.1.2	<no heading>	-			
1.7.1.3	<no heading>	-			
1.7.1.4	<no heading>	-			
1.7.1.5	<no heading>	-			
1.7.1.6	<no heading>	-			
1.7.1.7	<no heading>	-			
1.7.2	Intervals for Measurements		X		Note 2
1.8	Techniques for Filtering Measurements	X			
2.	MTP Monitoring and Measurements	-			
2.1	General	-			
2.2	Table 1	-			
2.3	Table 2	-			
2.4	Table 3	-			
2.5	Table 4	-			
2.6	Table 5	-			
2.7	Table 6	-			
3.	SCCP Monitoring and Measurements	-			
3.1	General	-			
3.2	Table 7	-			
3.3	Table 8	-			
3.4	Table 9	-			
3.5	Table 9 bis	-			
4.	ISDN-UP Monitoring and Measurements	-			
4.1	General	-			
4.2	Table 10	-			
4.3	Table 11	-			
4.4	Table 12	-			
5.	TC monitoring and Measurements	-			
5.1	General	-			



*Table 6 ITU-T Q.752, Monitoring and Measurements*

Reference		C	N	P	Comments
5.2	Table 13				
	Table 13.1			X	Note5
	Table 13.2			X	Note5
	Table 13.3			X	Note5
	Table 13.4			X	Note5
	Table 13.5	-			
	Table 13.6		X		
	Table 13.7		X		
	Table 13.8	-			
	Table 13.9		X		
	Table 13.10		X		
	Table 13.11		X		
5.3	Table 14				
	Table 14.1			X	Note2, Note 6
	Table 14.2	X			
	Table 14.3	X			
	Table 14.4			X	Note2, Note7
	Table 14.5			X	Note2, Note7
	Table 14.6			X	Note2, Note7
	Table 14.7		X		
	Table 14.8	X			
	Table 14.9	-			
	Table 14.10		X		
	Table 14.11	X			
	Table 14.12			X	Note 5
6.	Uses of Measurements	-			
6.1	Introduction	-			
6.2	Message Transfer Part (MTP)	-			
6.2.1	Fault and Configuration Management Measurements	-			
6.2.2	MTP Performance	-			

Table 6 ITU-T Q.752, Monitoring and Measurements

Reference		C	N	P	Comments
6.3	Signaling Connection Control Part (SCCP)	-			
6.3.1	SCCP Fault Management	-			
6.3.2	SCCP Configuration Management	-			
6.3.3	SCCP Performance	-			
6.4	Integrated Services Digital Network User Part (ISDN-UP)	-			
6.4.1	Fault and Configuration Management	-			
6.4.2	ISDN-UP Performance	-			
6.5	Transaction Capabilities (TC)	-			
6.5.1	TC Fault Management Measurements	X			
6.5.2	TC Performance			X	Note 5
6.6	Preparation of Traffic Forecasts	-			
6.7	Network Planning	-			
6.8	Evaluation of Maintenance Force Effectiveness	-			
6.9	Near Real Time Network Control	-			
7.	Accounting of MTP and SCCP Message Traffic	-			
7.1	General	-			
7.2	MTP Traffic Registration	-			
7.2.1	Basic Registration Principles	-			
7.2.2	Limitations	-			
7.3	SCCP Traffic Registration	-			
7.4	Basic Registration Principles	-			
7.5	Limitations				
A.	TC: Fault Measurements Pertinent to Development of TC and its Users	-			
A.1	Table A.1			X	Note 15



## 2.3 TRANSACTION CAPABILITIES APPLICAT. PART (TCAP), TTC JT-Q77X

The paragraph numbers in the tables in sections 2.3.1 - 2.3.4 refer to the changed sections of the modified ITU-T specifications.

### 2.3.1 JT-Q771, FUNCTIONAL DESCRIPTION OF TRANSACTION CAPABILITIES

Table 7 ITU-T Q.752, Monitoring and Measurements

Reference		C	N	P	Comments
2.3(3)	<Deleted Items>	X			Note 16

### 2.3.2 JT-Q772, TRANSACTION CAPABILITIES INFORMATION ELEMENT DEFINITIONS

The TTC specification is the same as the ITU\_T specification, ITU-T Q.772 (06/97), Signaling System No.7 - Transaction Capabilities Information Element Definitions.

### 2.3.3 JT-Q773, TRANSACTION CAPABILITIES FORMATS AND ENCODING

The TTC specification is the same as the ITU\_T specification, ITU-T Q.773 (06/97), Signaling System No.7 - Transaction Capabilities Formats and Encoding.

### 2.3.4 JT-Q774, TRANSACTION CAPABILITIES PROCEDURES

Table 8 ITU-T Q.752, Monitoring and Measurements

Reference		C	N	P	Comments
2.3 (2)	<Additional Items>(a)	X			Note 17
2.3 (2)	<Additional Items>(b)	X			Note 17







## 3 Notes

- Note 1** TCAP ITU / ETSI / TTC / Chinese supports the definition of most of the specified groups, but does not group the raw measurements together.
- Note 2** Faults are reported on each occurrence.
- Note 3** Accounting measurements are for further study in the ITU-T standard
- Note 4** Segmentation is not supported in TCAP ITU / ETSI / TTC / Chinese; all segmentation or reassemble must be performed by the TC-user.
- Note 5** TCAP ITU / ETSI / TTC / Chinese provides the raw measurements necessary to calculate these statistics.
- Note 6** No measurements in table 14.1, section 5.3(Q.752) are logged per destination address.
- Note 7** No measurements in table 14.4 through 14.6, section 5.3(Q.752) are logged per destination address. The address may instead be obtained from the alarms raised by TCAP ITU / ETSI / TTC / Chinese which are logged on every occurrence.
- Note 8** The supported management primitives requires that the information is directed to a specific subsystem. It is up to SCCP to send the information to each an every subsystem that is to be informed.
- Note 9** The Length of Contents element has a maximum length of 3 octets.
- Note 10** The Remote Cancel by the TC-user is applicable to the TC-user only.
- Note 11** Applicable to the TC-user only.
- Note 12** States 'Wait for Reject' and 'Reject Pending' are not implemented in TCAP ITU / ETSI / TTC / Chinese.
- Note 13** Invoke IDs may be reallocated immediately on return of the corresponding Invocation State Machine to the Idle State.



- Note 14** TCAP ITU / ETSI / TTC / Chinese checks for a Sequence of Externals in User Information but not the format of data within each External.
- Note 15** Compare with this report of section 5.3(Q.752) for details.
- Note 16** Support for distribution of SCCP management primitives are retained in TCAP ITU / ETSI / TTC / Chinese, but the usage is optional.
- Note 17** Additional change of originating address according to the standard 3G TS 23.006 (Support of Mobile Number Portability) also supported



## 4 Glossary

<b>ETSI</b>	European Telecommunications Standards Institute
<b>ITU</b>	International Telecommunication Union
<b>TCAP</b>	Transaction Capabilities Application Part
<b>TTC</b>	Telecommunications Technology Committee