

## Contents

1.	Introduction . . . . .	1-1
1.1	Definition . . . . .	1-1
1.2	Background . . . . .	1-1
2.	User Perspective . . . . .	2-1
3.	Feature Requirements . . . . .	3-1
3.1	Feature Operations . . . . .	3-1
3.1.1	Main Feature Operations . . . . .	3-1
3.1.1.1	TRAF . . . . .	3-1
3.1.1.2	NUTS/LUTS . . . . .	3-7
3.1.1.3	ACA . . . . .	3-9
3.1.2	Other Feature Operations . . . . .	3-11
3.1.2.1	TRAF . . . . .	3-11
3.1.2.2	NUTS/LUTS . . . . .	3-12
3.1.2.3	ACA . . . . .	3-12
3.1.3	Release Treatment . . . . .	3-13
3.1.4	Interrupt Treatment . . . . .	3-13
3.1.5	Error Treatment and Abnormal Events . . . . .	3-13
3.1.5.1	TRAF . . . . .	3-13
3.1.5.2	NUTS/LUTS . . . . .	3-14
3.1.5.3	ACA . . . . .	3-14
3.2	Internal Call Processing Controls . . . . .	3-15
3.2.1	Connections . . . . .	3-15
3.2.1.1	TRAF . . . . .	3-15
3.2.1.2	NUTS/LUTS . . . . .	3-15
3.2.1.3	ACA . . . . .	3-15
3.2.2	Class of Service . . . . .	3-16
3.2.3	Code Interpretation . . . . .	3-16
3.2.4	Screening . . . . .	3-16
3.2.4.1	TRAF . . . . .	3-16
3.2.4.2	NUTS/LUTS . . . . .	3-16
3.2.4.3	ACA . . . . .	3-16
3.2.5	Routing . . . . .	3-17
3.2.6	Charge Treatment Determination . . . . .	3-17
3.2.7	Overload . . . . .	3-17
3.3	Signaling . . . . .	3-17
3.3.1	Customer Loop . . . . .	3-17
3.3.2	Customer Signaling . . . . .	3-17
3.3.2.1	TRAF . . . . .	3-17
3.3.2.2	NUTS/LUTS . . . . .	3-17
3.3.2.3	ACA . . . . .	3-17
3.3.3	Intersystem dc Signaling . . . . .	3-18
3.3.4	Intersystem ac Signaling . . . . .	3-18
3.3.5	Operator Services Signaling . . . . .	3-18

3.4	Transmission . . . . .	3-18
3.5	Administration . . . . .	3-18
3.5.1	Service Changes . . . . .	3-18
3.5.1.1	TRAF . . . . .	3-18
3.5.1.2	NUTS/LUTS . . . . .	3-19
3.5.1.3	ACA . . . . .	3-19
3.5.2	Installation . . . . .	3-20
3.5.3	Modification or Retrofit . . . . .	3-20
3.5.4	Person/System Interface . . . . .	3-20
3.5.5	Traffic Measurements . . . . .	3-21
3.5.5.1	TRAF . . . . .	3-21
3.5.6	Maintenance Measurements . . . . .	3-21
3.5.7	Network Management . . . . .	3-21
3.5.8	Billing and Comptroller . . . . .	3-21
3.5.9	Quantities . . . . .	3-21
3.5.9.1	TRAF . . . . .	3-21
3.5.9.2	NUTS/LUTS . . . . .	3-21
3.5.9.3	ACA . . . . .	3-22
3.5.10	Data Items and Usage . . . . .	3-22
3.5.10.1	TRAF Provision Features . . . . .	3-22
3.5.10.2	Traffic Data . . . . .	3-23
3.5.10.3	NUTS/LUTS . . . . .	3-24
3.5.10.4	ACA . . . . .	3-25
3.6	Maintenance . . . . .	3-26
3.6.1	Automated System Maintenance . . . . .	3-26
3.6.2	Manual System Maintenance . . . . .	3-26
3.6.3	Line Maintenance . . . . .	3-26
3.6.4	Trunk Maintenance . . . . .	3-26
3.6.5	Input/Output Messages . . . . .	3-26
3.6.5.1	TRAF . . . . .	3-26
3.6.5.2	NUTS/LUTS . . . . .	3-26
3.6.5.3	ACA . . . . .	3-27
3.6.6	Customer Tests . . . . .	3-27
3.7	Performance . . . . .	3-27
3.7.1	TRAF . . . . .	3-27
3.7.2	NUTS/LUTS . . . . .	3-27
3.7.3	ACA . . . . .	3-27
3.8	Interactions . . . . .	3-28
3.8.1	TRAF . . . . .	3-28
3.8.1.1	NUTS/LUTS . . . . .	3-28
3.8.1.2	ACA . . . . .	3-28
3.8.1.3	Customer Control of Automatic Flexible Routing . . . . .	3-28
3.8.1.4	Customer Control of Queuing . . . . .	3-29
3.8.1.5	Customer Administration of Authorization Codes . . . . .	3-29
3.8.1.6	Customer Administration of Alternate Facility Restriction Levels . . . . .	3-29
3.8.1.7	Selective Control of Facilities . . . . .	3-29

3.8.2	NUTS/LUTS . . . . .	3-29
3.8.2.1	TRAF . . . . .	3-29
3.8.2.2	ACA . . . . .	3-30
3.8.2.3	Customer Control of AFR . . . . .	3-30
3.8.2.4	Customer Control of Queuing . . . . .	3-30
3.8.2.5	Customer Administration of Authorization Codes . . . . .	3-31
3.8.2.6	Customer Administration of Alternate FRLs . . . . .	3-31
3.8.3	ACA . . . . .	3-31
3.8.3.1	TRAF . . . . .	3-31
3.8.3.2	NUTS/LUTS . . . . .	3-31
3.8.3.3	Customer Control of AFR . . . . .	3-32
3.8.3.4	Customer Control of Queuing . . . . .	3-32
3.8.3.5	Customer Administration of Authorization Codes . . . . .	3-32
3.8.3.6	Customer Administration of Alternate FRLs . . . . .	3-32
3.9	Limitations and Restrictions . . . . .	3-33
3.10	Timing and Tolerances . . . . .	3-33
4.	Feature Flow Diagram . . . . .	4-1
	References . . . . .	References-1
	Glossary . . . . .	Glossary-1



## List of Figures

Figure 1.	Sample Traffic Data Collection and Update Procedure . . . . .	4-1
Figure 2a.	Sample Collection and Updating Procedure for Scheduled Traffic Data Delivery . . . . .	4-2
Figure 2b.	Sample Collection and Updating Procedure for Scheduled Traffic Data Delivery . . . . .	4-3



## List of Tables

Table 1.	Polled Delivery Data Items for TRAF Features . . . . .	3-22
Table 2.	TRAF Measurements Data Items . . . . .	3-23
Table 3.	TRAF Collection Data Items . . . . .	3-24
Table 4.	TRAF Delivery Data Items . . . . .	3-24
Table 5.	NUTS/LUTS Measurement Data Items . . . . .	3-24
Table 6.	NUTS/LUTS Collection Data Items . . . . .	3-25
Table 7.	NUTS/LUTS Delivery Data Items . . . . .	3-25
Table 8.	ACA Measurement Data Items . . . . .	3-25
Table 9.	ACA Collection Data Items . . . . .	3-25
Table 10.	ACA Delivery Data Items . . . . .	3-26
Table 11.	TRAF Timing and Tolerances . . . . .	3-33