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ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

D.170
Supplement 1
(05/2010)

SERIES D: GENERAL TARIFF PRINCIPLES

General tariff principles – Drawing up and exchange of international telephone and telex accounts

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Monthly telephone and telex accounts

Supplement 1 – Dispute management guidelines

Recommendation ITU-T D.170 – Supplement 1

ITU-T D-SERIES RECOMMENDATIONS

GENERAL TARIFF PRINCIPLES

TERMS AND DEFINITIONS	D.0
GENERAL TARIFF PRINCIPLES	
Private leased telecommunication facilities	D.1–D.9
Tariff principles applying to data communication services over dedicated public data networks	D.10–D.39
Charging and accounting in the international public telegram service	D.40–D.44
Charging and accounting in the international telemessage service	D.45–D.49
Principles applicable to GII-Internet	D.50–D.59
Charging and accounting in the international telex service	D.60–D.69
Charging and accounting in the international facsimile service	D.70–D.75
Charging and accounting in the international videotex service	D.76–D.79
Charging and accounting in the international phototelegraph service	D.80–D.89
Charging and accounting in the mobile services	D.90–D.99
Charging and accounting in the international telephone service	D.100–D.159
Drawing up and exchange of international telephone and telex accounts	**D.160–D.179**
International sound- and television-programme transmissions	D.180–D.184
Charging and accounting for international satellite services	D.185–D.189
Transmission of monthly international accounting information	D.190–D.191
Service and privilege telecommunications	D.192–D.195
Settlement of international telecommunication balances of accounts	D.196–D.209
Charging and accounting principles for international telecommunication services provided over the ISDN	D.210–D.269
Charging and accounting principles for next generation networks (NGN)	D.270–D.279
Charging and accounting principles for universal personal telecommunication	D.280–D.284
Charging and accounting principles for intelligent network supported services	D.285–D.299
RECOMMENDATIONS FOR REGIONAL APPLICATION	
Recommendations applicable in Europe and the Mediterranean Basin	D.300–D.399
Recommendations applicable in Latin America	D.400–D.499
Recommendations applicable in Asia and Oceania	D.500–D.599
Recommendations applicable to the African Region	D.600–D.699

For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T D.170

Monthly telephone and telex accounts

Supplement 1

Dispute management guidelines

Summary

This supplement is intended to assist telecommunication carriers in the development of efficient processes that might be used to resolve disputes in international settlements. Before a dispute can be raised, parties should have agreed to a reconciliation or dispute criteria and such criteria should preferably be specified in the signed agreement or contract.

The supplement is focused on revenue and costs assurance and it mitigates any revenue and/or cost risk. It describes the details of the criteria which may be taken into consideration before raising and verification of any dispute, possible sources of dispute, and determination of validity of dispute or discrepancy.

The supplement provides guidance on managing the resolution of disputes resulting from poor reference data maintenance (rate discrepancy, destination or dial code) and transactional data (recovery rate shortfall, volume discrepancy, time zone differences, calls crossing midnight and one month to the next, negative declarations, double counting, volume committed agreements, reverse charged calls, call durations, etc.).

It also describes a method of CDR exchange and comparison process and how to proceed with unresolved disputes.

It is recognized that telecommunication carriers use their own procedures which depend upon internal processes, resources, knowledge, experiences and bilateral agreements with counterparts. Commercial arrangements typically determine venue and choice of law for dispute resolution, as well as any requirements for negotiation that must be exhausted before formal arbitration may commence. There are many existing mechanisms worldwide through which disputes arising in these commercial arrangements are settled. These existing mechanisms have usually operated successfully in the past and show no signs of failing to address current or anticipated connectivity issues.

This supplement proposes a set of common practices and standards that could be included in bilateral agreements between the partners.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T E.270	1972-12-15	
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5.0	ITU-T D.170/E.270	1988-11-25	
6.0	ITU-T D.170	1993-03-12	III
7.0	ITU-T D.170	1995-03-20	3
8.0	ITU-T D.170	1998-06-12	3
9.0	ITU-T D.170	2006-06-27	3
10.0	ITU-T D.170	2010-05-21	3
10.1	ITU-T D.170 Suppl.1	2010-05-21	3
10.2	ITU-T D.170 Suppl.2	2010-05-21	3

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this publication, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this publication is voluntary. However, the publication may contain certain mandatory provisions (to ensure e.g., interoperability or applicability) and compliance with the publication is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the publication is required of any party.

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CONTENTS

Recommendation ITU-T D.170

Monthly telephone and telex accounts

Supplement 1

Dispute management guidelines

1 Scope

The scope of this supplement is to describe possible processes for managing a dispute related to a specific account, invoice and bilateral recovery rate.

2 References

[ITU-T D.170] Recommendation ITU-T D.170 (2010), *Monthly telephone and telex accounts*.

3 Definitions

Definition of terms used in this supplement includes but is not limited to:

An account or traffic declaration statement (under ITU Recommendations) is defined as:

– What Carrier "A" sends to Carrier "B" to declare what Carrier "A" owes Carrier "B".

An invoice (refile or hubbing) is defined as:

– What Carrier "B" sends to Carrier "A" to bill Carrier "A" for what it owes Carrier "B".

4 Abbreviations and acronyms

This supplement uses the following abbreviations and acronyms:

CDR Call Detail Record

IDD International Direct Dialling

5 What is a dispute management?

Dispute management, whilst seen as a form of billing assurance as it mitigates revenue and/or cost risk, occurs where a discrepancy between the records of Company "A" and the invoice/declaration of Company "B" own records and that included in a Carrier's declaration or invoice exceed the reconciliation parameters negotiated between yourself and a specific carrier.

Disputes result from a multitude of reasons of which poor reference data maintenance is the most common. Factors resulting in disputes and pre-cautionary measures are described in the clauses below.

A dispute first arises when a discrepancy in data is noted. Not all discrepancies will result in a dispute, e.g., if a discrepancy has a significant financial impact, a dispute will be raised, whereas an insignificant financial impact may not necessarily result in a dispute. The terms "dispute" and "discrepancy" are used interchangeably.

Wholesale business in general represents a two-way process and, to maintain longstanding relationships, parties may be required to compromise from time to time.

6 Dispute resolution process

This clause can best be read in conjunction with the figure in clause 8: Dispute process flowchart.

6.1 Criteria[1]

Before a dispute can be raised, parties must agree to a reconciliation or dispute criteria. The criteria should preferably be specified in the signed agreement or contract. The advantages for having agreed criteria include, but are not limited to:

- Ensure that both parties use the same base, i.e., compare apples to apples;
- Avoid unnecessary and cost-ineffective disputes being raised;
- Disputes are raised and resolved within acceptable time-frames;
- Considerably reduce the time to resolve the issue as parties will not engage in unnecessary correspondence to clarify disputes.

Criteria are typically driven by the type of agreement or contract negotiated between carriers and depend on the nature of the business. Agree on criteria that will work for both you and your partner. Examples of criteria include, but are not limited to:

- An acceptable percentage of variance and amount of variance;
- An agreed time-frame for raising a dispute;
- An estimated good faith time-frame goal for resolving a dispute;
- Both parties agree to settle on undisputed amounts and per term of the agreement, e.g., 30 days, etc.;
- Specify the service type, e.g., bilateral telephone, hubbing, refile, committed volume, etc.;
- Always reconcile on traffic month – never on accounting month – or per contract terms;
- Specify if you are reconciling on traffic volumes and/or financial values. Both have pros and cons;
- Terminating country or city (usually mandatory) – specify if cities need to be rolled into higher level grouping and list the cities that make up a group;
- Product or traffic type – specify if products/traffic types need to be grouped together, list the products that make up a group, etc.;
- Rate and surcharges, including currency;
- Traffic volumes;
- Call count, where applicable;
- Terminating carrier, if applicable;
- Originating country or city and/or carrier, if applicable;
- Transit/via carrier, if applicable;
- Financial value of disputed items, if required. Specify a minimum value for a dispute;
- Etc.

Upon receiving a dispute, the following steps should be taken:

- Register the dispute and check for any previous dispute issues and their resolution (this may give a hint as to what the root cause could be).
- Acknowledge receipt of the dispute and indicate by when your feedback will be provided.

[1] Applies to both raising and receiving disputes.

6.2 Analyse dispute or discrepancy[1]

It is important to understand the cause of a discrepancy or dispute. A discrepancy or dispute must be quantifiable and measurable in financial terms.

A discrepancy or dispute may result from:

– A mismatch of rates;

– A mismatch of dial codes and/or destinations;

– A mismatch of traffic volumes and/or call counts;

– A mismatch of products;

– A mismatch on rounding;

– A mismatch in time zones;

– Other reasons;

Each of these is described in detail in the following clauses.

6.2.1 Determine validity of dispute or discrepancy[1]

The first step is to determine if a dispute or discrepancy is valid. This involves the following analysis:

– Check the reconciliation criteria as agreed in the contract or agreement:
  - Is the dispute based on the exact same criteria? Refer to clause 6.1 for a description of reconciliation criteria.
  - Is your own data aggregated and/or extracted at the same level, i.e., are you comparing apples to apples?

– Does the dispute exceed the agreed percentage of variance?
  - Check the actual financial value of the variance.
  - If the financial value is less than the agreed amount of variance, then do not raise a dispute or reject the declared dispute. The cost for resolving an issue should not exceed the financial value of the dispute. Not only would you have wasted valuable time, but you could be perceived as an "annoying" customer which could negatively impact the business relation with your counterpart.

– Has the dispute been raised within the agreed time-frame?
  - If not, discretion should be used as to whether the dispute should be accepted or rejected.

If the answer to any of the above questions is 'Yes' and the financial value of the dispute is significant, then proceed to the second step.

6.2.2 Determine root cause(s) of dispute or discrepancy[1]

This second step involves analysing the root cause of the dispute or discrepancy and involves a process of elimination. Poor reference data maintenance and incomplete transactional data are the two most common factors that result in disputes. Check lists to guide carriers through this process are discussed in clauses 6.3 and 6.4 below.

6.3 Disputes relating to poor reference data maintenance

6.3.1 Rate discrepancy

Does the rate in *your system* match the latest rate from the refile/hubbing rate sheet, the committed volume agreement, the rate change notice or any other contract negotiated between yourself and the carrier?[2]

- Check the rate and the effective date;
- Back-dating of rates or agreements: re-rating of traffic impacts financial reconciliation. Update your system as soon as agreements or contracts are signed. Billing systems that are not updated regularly not only leads to disputes but also results in overpayment and under-collection.

Does the *disputed rate* match the latest published rate from the refile/hubbing rate sheet (electronic or paper), the committed volume agreement or any other contract negotiated between yourself and the carrier?[3]

- If not, check the dispute history of the carrier in question. If the carrier habitually neglects to update its records, then reject the disputed rate and attach a copy of the latest rate agreement to the rejection note;
- If the carrier is a 'first offender', use your discretion, i.e., you may accept the discrepancy and request the carrier to pass a correction in the next declaration or invoice, or you may decide to reject the disputed rate.

Has the disputed rate been converted from one currency to another?[1]

- Check if discrepancy can be attributed to rounding rules applied to converted rate;
- If the financial impact of the rounding rules is insignificant, reject the disputed rate, else accept the disputed rate.

6.3.2 Destination or dial code discrepancy

Do the dial codes and/or destinations in *your system* match the dial codes and destinations from the refile/hubbing rate sheet, the committed volume agreement, the rate change notice or any other contract negotiated between yourself and the carrier?[2]

- Have any of the destinations or cities been grouped together? Are your groupings correct?
- Update your system, if necessary.

Is the carrier disputing destinations you do not have?[3]

- Do the *disputed* dial codes and/or destinations match the latest rate from the refile/hubbing rate sheet, the committed volume agreement or any other contract negotiated between yourself and the carrier?
- Where applicable, did the carrier group destinations correctly?
- Check your error bin and clear any call detail records (CDR) that are in error. They just may include the 'missing' destinations;
- Check the dispute history of the carrier in question. If the carrier habitually neglects to update its records, then reject the disputed rate and attach a copy of the latest dial code agreement to the rejection note;

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[2] Applies when you want to raise a dispute.

[3] Applies when you receive a dispute.

– If the carrier is a 'first offender', use your discretion, i.e., you may accept the discrepancy and request the carrier to pass a correction in the next declaration or invoice, or you may decide to reject the disputed dial code.

6.4 Disputes relating to transactional data

6.4.1 Recovery rate shortfall

A recovery rate shortfall dispute is raised when a traffic discrepancy or shortfall is noted between your records and those included on a carrier's inbound declaration or invoice. The financial value of the variance should be calculated to justify the efforts of analysing the traffic data. If the financial value is significant, raise or accept the dispute. Do not raise a dispute if the value is insignificant, or reject a dispute if its impact is insignificant.

For example, 10'000 shortfall minutes at USD 0.01 equates to USD 100 may not be a worthwhile effort to initiate a dispute.

6.4.2 Volume discrepancy[1]

Whenever transactional data or traffic volumes are disputed, the following generic tests can be executed:

– Has the reconciliation criteria been met?
– Has data been grouped correctly?
– Confirm that the declaration or invoice totals match with your own system data.
– Re-validate the volume commitments, thresholds and/or discounts.
– Have all errored CDRs been cleared? If not, clear out errors as these CDRs just may include the traffic volumes required to achieve a committed volume or the disputed traffic volume.
– Have all CDR files been processed? If not, work down any backlogs.
– Check the total volume and then the volumes by rates charged for any dial code misclassification.
– Verify against the possible factors within your own system – see the list of possible factors below.

6.4.2.1 Time zone differences[1]

Check for time zone differences. Your system may bill in local time zone whereas your counterpart could bill in UTC/GMT time zone. The recommended time zone for measurement and billing of data is UTC/GMT.

If discrepancies relate to time zones, then factor this into the reconciliation of future declarations and invoices to avoid future disputes. This can be done by converting your CDRs to the same time zone as your counterpart and review the volumes.

If CDRs are cut from multiple switches, ensure the clocks are synchronized across your entire network.

6.4.2.2 Calls crossing midnight (and one month to the next)[1]

If calls cross midnight or one month to the next, check if the entire duration is accounted for against the date before midnight or if the duration is split between before and after midnight.

How do you and your partner account for these calls?

Does the contract or agreement between you and your partner stipulate how these calls should be accounted for?

6.4.2.3 Negative declarations[1]

In certain instances, negative declarations should be ignored in the reconciliation process as it could result in a zero declaration. Let us assume that 100 minutes were declared at a rate of USD 0.50. The rate has since changed to USD 0.10. If the carrier declares the rate adjustment in the following manner, the negative declaration should be ignored when reconciling:

- –100 min USD 0.40.
- Originally 100 min was declared and the carrier now makes a financial adjustment, i.e., +100 min –100 min = 0, which creates the impression that zero minutes have been declared which is incorrect.

6.4.2.4 Double counting[1]

Traffic volumes can easily be double counted. Analyze carefully how traffic is rated within your own system and how a carrier declares traffic.

Example: A single call may involve a rate per minute (terminating fee), as well as a surcharge per minute (marketing fee). The duration of the call is 100 minutes.

Carrier "A" presents the information as:

Fee type	Rate	Duration	Amount	Currency
Terminating fee	0.1	100	10.00	USD
Marketing fee	0.2	100	20.00	USD

In terms of financial reconciliation, these two records should be added, i.e., USD 30.00.

However, from a traffic perspective, the duration cannot be added as the duration of the call is 100 minutes, and not 200. Other criteria, such as traffic date, product id and destination, must be taken into account to prevent double counting.

Carrier "B" may present the information as:

Rate 1	Rate 2	Duration	Amount 1	Amount 2	Total	Currency
0.1	0.2	100	10.00	20.00	30.00	USD

Carrier "C" may present the information as:

Rate	Duration	Amount	Currency
0.3	100	30.00	USD

Carriers cannot dictate to each other how data should be presented as billing systems differ and each system has its own limitations. In the case of Carrier "B" and Carrier "C", duration is not double counted. Carriers are cautioned to be alert and to check for potential double-counting situations.

6.4.2.5 Volume committed agreements[1]

It is better to keep reconciliation at a higher level rather than at a too low level of detail. No two carriers process bilateral volume commitments in the same manner – traffic volumes will still match, but the details may differ. The details depend on the order in which traffic is being accounted for in an agreement.

6.4.2.6 Transactions being withheld[1]

A carrier may withhold transactions, i.e., exclude transactions from declarations or invoices for whatever reason. Ensure you exchange traffic statistics with carriers with whom you have cascaded agreements on a monthly basis. For direct accounting, track CDRs to determine if transactions have potentially been withheld.

6.4.2.7 Reverse calls[1]

It is one of the most difficult traffic types to reconcile – manage on a case-by-case basis.

6.4.2.8 Call durations[1]

Agreements and contracts should stipulate which duration should be used for special services, e.g.:

– For home country direct the duration may include or exclude the holding time of the call.

– Specify which services are based on network time versus conversation duration.

– Not all parties use the same rounding rules when records are aggregated on invoices and declarations. Factor this into percentage and amount of variances.

6.5 CDR exchange and comparison[1]

Call detail records (CDRs) can be used to resolve disputes. It is however recommended that the exchange of CDRs should only be carried out as a final step, if neither party agrees with the summary data already provided.

CDR comparison can be a very time-consuming exercise, and where possible to speed up the resolution process, the extracted data should be limited to the disputed data only.

However, if full month invoiced CDRs are required, the data should limit the criteria to a day CDRs or days only.

CDRs can be used to:

– Produce sums of the call volume, actual minutes and billed minutes from your CDR and the invoice the carrier sent;

– Ensure that the carrier's CDRs match the expected volume as per the invoice they sent;

– Compare CDRs by date – especially the first and last day of the billing period;

– Verify that both parties' CDRs are expressed in the same time zone.

In the event where several months invoiced volumes in dispute, it is recommended that only one month CDR should be exchanged. The carrier customer has the option to ask for which month.

Carriers initiating or sending a dispute need to take into account the above criteria.

If the exchange of CDRs does not resolve a dispute, arrange an end-to-end test between your switch and disputed carriers switch, i.e., take measurements between mutually agreed time periods and days. If both exchanges return similar statistics on traffic volumes and/or destinations and/or types of traffic, then it is an indication that the cause of the dispute lies with post-processing.

6.6 Unresolved disputes

To maintain a good business relationship with your counterpart, it is recommended to adopt a normal and fruitful business practice by not withholding payment due to an impending unresolved dispute. The payment process should take place on undisputed amounts.

Alternatively, if both parties agree to an arbitration process, they can appoint or engage an external mediator (e.g., a carrier or a third party) to assist with the dispute resolution.

7 Possible technical causes resulting in disputes

The following table lists some probable causes and descriptions for why disputes may arise. In the table below, the assumption is "Carrier A" is the sender of the dispute, and "Carrier B" receives it.

Cause	Description
Minimum duration	Using minimum call duration different to what was contracted.
Missing data	Call data not recorded in the switch or captured in the billing system.
Long duration	"Carrier A" may record transaction as two or more calls, while "Carrier B" records as one. (Overall minutes should be the same but call counts may differ, and the multiple records may span two months.)
Answer status	Unanswered calls being treated as answered – this could be due to network signalling issues or billing system error.
Route to wrong carrier	Route could be assigned to wrong carrier in system.
Looping	One call may be recorded as two because it has been sent twice on two different circuits, back through the originator.
Time handling	Possible billing system errors made with time duration conversions and subsequent use of that converted data.
Error bucket	Rejected CDRs in error bucket which have not been resolved.
Dial codes	Dial codes misclassified due to human loading error.
Multiple switches	When working with multiple switches (same country or across countries), call matching must be accurate to ensure that one call is not interpreted as multiple individual calls. This is worsened when clocks are not synchronized.
Outages	Cable breaks and disruption of services could cause traffic to divert to non agreed routes and lose recording of traffic measurements.

8 Dispute process flowchart

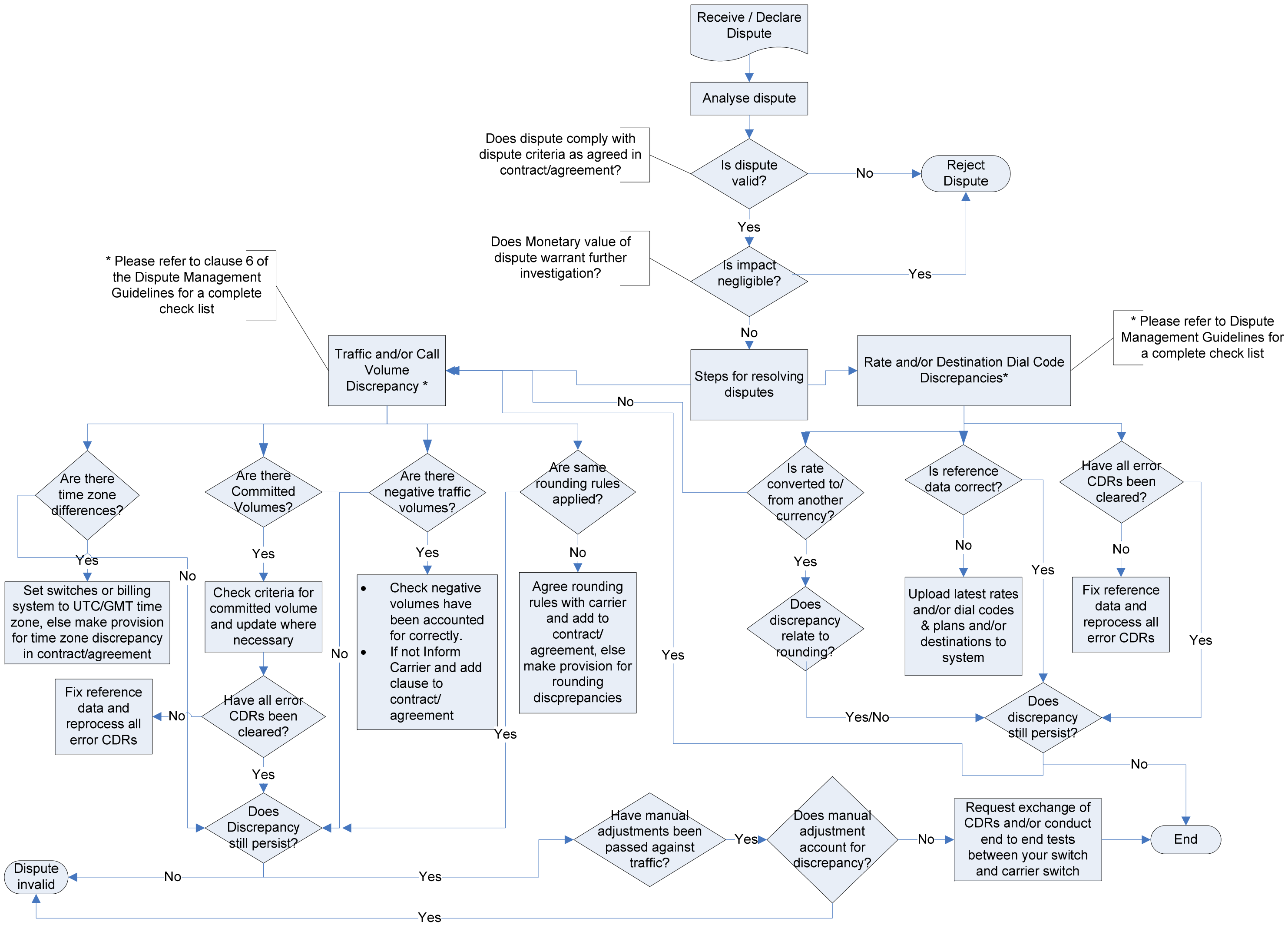

Figure 8-1 – Dispute process flowchart

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	**General tariff principles**
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Terminals and subjective and objective assessment methods
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems

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