



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**E.411**

**Amendment 1**  
(03/2001)

SERIES E: OVERALL NETWORK OPERATION,  
TELEPHONE SERVICE, SERVICE OPERATION AND  
HUMAN FACTORS

Network management – International network  
management

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International network management – Operational  
guidance

**Amendment 1**

ITU-T Recommendation E.411 – Amendment 1

(Formerly CCITT Recommendation)

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## **ITU-T Recommendation E.411**

### **International network management – Operational guidance**

#### **AMENDMENT 1**

#### **Summary**

This amendment aims to make adjustments to ABR (answer bid ratio) and ASR (answer seizure ratio) parameters when introducing number portability. ASR and ABR parameters calculated downstream the rerouting exchange/network and towards the donor exchange/network should be adjusted in order not to consider as failed calls the ones to ported number, resulting in release messages.

It is also proposed to add references at the end of ITU-T E.411.

#### **Source**

Amendment 1 to ITU-T Recommendation E.411 was prepared by ITU-T Study Group 2 (2001-2004) and approved under the WTSA Resolution 1 procedure on 17 March 2001.

## FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. 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 Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

## INTELLECTUAL PROPERTY RIGHTS

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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## ITU-T Recommendation E.411

### International network management – Operational guidance

#### AMENDMENT 1

#### 1) Subclauses 3.6.3 and 3.6.4

*In order to adjust the calculation of ASR and ABR, modify 3.6.3 and 3.6.4. The modifications are shown in italics:*

**3.6.3 answer seizure ratio (ASR):** ASR gives the relationship between the number of seizures that result in an answer signal and the total number of seizures. This is a direct measure of the effectiveness of the service being offered onward from the point of measurement and is usually expressed as a percentage as follows:

$$\text{ASR} = \frac{\text{Seizures resulting in answer signal}}{\text{Total seizures}} \times 100$$

Measurement of ASR may be made on a circuit group or on a destination basis.

*In presence of number portability, performed by the mechanisms of dropback or query on release, the calculus of ASR should be adjusted to subtract from the total number of seizures the number of release messages indicating the request for rerouting.*

$$\text{ASR} = \frac{\text{Seizures resulting in answer signal}}{\text{Total seizures} - \text{release (rerouting)}} \times 100$$

**3.6.4 answer bid ratio (ABR):** ABR gives the relationship between the number of bids that result in an answer signal and the total number of bids. ABR may be made on a circuit group or on a destination basis.

$$\text{ABR} = \frac{\text{Bids resulting in answer signal}}{\text{Total bids}} \times 100$$

ABR is expressed as a percentage and is a direct measure of the effectiveness of traffic onward from the point of measurement. It is similar to ASR except that it includes bids that do not result in a seizure.

*In presence of number portability, performed by the mechanisms of dropback or query on release, the calculus of ABR should be adjusted to subtract from the total number of bids the number of release messages indicating the request for rerouting.*

$$\text{ABR} = \frac{\text{Bids resulting in answer signal}}{\text{Total bids} - \text{release (rerouting)}} \times 100$$

## 2) References

*Add the following:*

### References

The following ITU-T Recommendations and other references contain provisions, which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

- ITU-T E.411 (2000), *International network management – Operational guidance*.
- ITU-T Q.730 (1999), *Signalling System No. 7 – B-ISDN user part (B-ISUP) – Supplementary services*.
- ITU-T Q.763 (1999), *Signalling System No. 7 – ISDN user part formats and codes*.
- ITU-T Q.764 (1999), *Signalling System No. 7 – ISDN user part signalling procedures*.
- ITU-T Q.769.1 (1999), *Signalling System No. 7 – ISDN user part enhancements for the support of number portability*.
- ITU-T Supplement 5 to the Q-Series of Recommendations (1999), *Number portability – capability set 2 requirements for service provider portability (Query on release and dropback)*.

## **SERIES OF ITU-T RECOMMENDATIONS**

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