



**ETSI
TECHNICAL
REPORT**

ETR 202

September 1995

Source: ETSI TC-SPS

Reference: DTR/SPS-00001-3

ICS: 33.020

Key words: PSTN, DTMF

**Public Switched Telephone Network (PSTN);
Real time clock**

[CEPT Recommendation T/CS 20-18 E (1981)]

ETSI

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Foreword

This ETSI Technical Report (ETR) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI).

ETRs are informative documents resulting from ETSI studies which are not appropriate for European Telecommunication Standard (ETS) or Interim European Telecommunication Standard (I-ETS) status. An ETR may be used to publish material which is either of an informative nature, relating to the use or the application of ETSs or I-ETSs, or which is immature and not yet suitable for formal adoption as an ETS or an I-ETS.

This work was initiated by the restructuring of CEPT (Conférence Européenne des administrations des Postes et des Télécommunications) and the creation of ETSI. As reported to the 16th Technical Assembly of ETSI, CEPT has proposed to transfer some Recommendations to ETSI which pertain to standardization.

Technical Committee SPS decided to convert these Recommendations into ETRs without any modification. The reader should note that undated references may no longer be relevant.

Endorsement notice

The text of CEPT Recommendation T/CS 20-18 E (1981) was approved by ETSI as an ETR without any modification.

NOTE: Due to the unavailability of the endorsed CEPT Recommendation, it is reproduced on the following page of this ETR.

Recommendation T/CS 20-18 (Innsbruck 1981)

REAL TIME CLOCK

Recommendation proposed by Working Group T/WG 11 "Switching and Signalling" (CS)

Text of the Recommendation adopted by the "Telecommunications" Commission:

"The European Conference of Postal and Telecommunications Administrations,

considering

- that in accordance with the principles outlined in Recommendation T/CS 20-01 [1], the exchange and network features which are required for the implementation of services and facilities should be identified and specified;
- that in many existing exchanges in the European network, real time information is used for various functions and is likely to be required for several new services and facilities,

recommends

to the members of the CEPT the use of the following definition and arrangements for the feature *real time clock*."

1. DEFINITION

The *real time clock* feature is defined as the ability of an exchange to provide real time information.

2. DESCRIPTION

The real time clock feature of an exchange includes the functions required to identify the time at which an incident occurs or to recognise coincidence between a pre-defined time and real time.

3. TECHNICAL CHARACTERISTICS

- 3.1. The clock should maintain accuracy under all combinations of electrical load and ambient conditions. A tolerance of ± 1 second from national standard time should be assured.
- 3.2. It should be possible for the Administration to advance or retard the clock by any amount.
- 3.3. Real time is to be defined in terms of:
 - second; calendar day;
 - minute; calendar month;
 - hour; calendar year.
- 3.4. In addition, up to N types of day may be required (the number N of types is for further study).

4. UTILISATION

The real time clock feature is used whenever reference to actual time is required and it is used in conjunction with other features on the following services:

- malicious call identification;
- automatic alarm call services;
- printed record of charge information and charge announcement;
- services where activation is carried out at prearranged times;
- other administrative and maintenance services.

Additionally, this feature will be used whenever it is required to print out the time at which a particular event occurred. It may also be used to switch tariff rates and for call charge calculations.

Reference

- [1] Recommendation T/CS 20-01. *Exchange and network features*.

Note: The studies on this series (T/CS 20) of Recommendations for the features in an analogue environment has now been terminated. A continuation of the studies has started with the aim to amend these existing features, where necessary, and to specify new features for the ISDN. These Recommendations will be gathered in a new series of Recommendations.

History

Document history	
September 1995	First Edition