



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**I.241.6**

**INTEGRATED SERVICES DIGITAL NETWORK (ISDN)  
SERVICE CAPABILITIES**

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**TELESERVICES SUPPORTED BY AN ISDN:  
TELEX**

**ITU-T Recommendation I.241.6**

(Extract from the *Blue Book*)

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## NOTES

1 ITU-T Recommendation I.241.6 was published in Fascicle III.7 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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## Recommendation I.241.6

### TELESERVICES SUPPORTED BY AN ISDN: TELEX

(Melbourne, 1988)

#### 6 Telex

##### 6.1 Definition

This service provides interactive text communication. The digital signal at the S/T reference point follows the internationally agreed Recommendations for telex above the ISDN physical layer.

##### 6.2 Description

For further study.

##### 6.3 Procedures

For further study.

##### 6.4 Network capabilities for charging

This Recommendation does not cover charging principles. Future Recommendations in the D-Series are expected to contain that information.

It shall be possible to charge the subscriber accurately for the service.

##### 6.5 Interworking requirements

For further study.

##### 6.6 Interaction with supplementary services

For further study.

##### 6.7 Attributes and values of attributes of the telex service

###### a) LOW LAYER ATTRIBUTES

###### Information transfer attributes

- |                                     |  |
|-------------------------------------|--|
| 1. Information transfer mode:       | circuit (packet is for further study (Note)) |
| 2. Information transfer rate:       | 64 kbit/s                                    |
| 3. Information transfer capability: | unrestricted                                 |
| 4. Structure:                       | 8 kHz integrity                              |
| 5. Establishment of communication:  | reserved/permanent                           |
| 6. Symmetry:                        | bidirectional                                |
| 7. Communication configuration:     | point-to-point                               |

###### Access attributes

- |  |  |
|--|--|
| 8. Access channel:                       | B for user information<br>D for signalling<br>(D for telex user information is for further study (Note)) |
| 9. Access protocol:                      |  |
| 9.1 Signalling access protocol layer 1:  | I.430/I.431  |
| 9.2 Signalling access protocol layer 2:  | U.202  |
| 9.3 Signalling access protocol layer 3:  | U.202  |
| 9.4 Information access protocol layer 1: | I.430/I.431  |
| 9.5 Information access protocol layer 2: | U.202  |
| 9.6 Information access protocol layer 3: | for further study  |

b) *HIGH LAYER ATTRIBUTES*

- |                                |       |                     |
|--------------------------------|-------|---------------------|
| 10. Type of user information:  | telex |                     |
| 11. Layer 4 protocol functions |       | } For further study |
| 12. Layer 5 protocol functions |       |                     |
| 13. Layer 6 protocol functions |       |                     |
| 14. Layer 7 protocol functions |       |                     |

c) *GENERAL ATTRIBUTES*

- |                                      |  |
|--------------------------------------|--|
| 15. Supplementary services provided: | for further study                          |
| 16. Quality of Service:              | for further study                          |
| 17. Interworking possibilities:      | Telex, Teletex (others: for further study) |
| 18. Operational and commercial:      | for further study                          |

*Note* - Subject to satisfying telex quality of service on D-channel.

6.8 *Recommended support of Telex by an ISDN*

a) Overall support<sup>1</sup>: FS

b) Variations of non-dominant attributes:

1) Information transfer mode

- circuit: FS
- packet: FS

2) *Establishment of communication*      *Symmetry*      *Communication configuration*      *Support*<sup>1</sup>

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demand } reserved } permanent }	bidirectional symmetric	pt-pt pt-pt pt-pt	E FS A
demand } reserved } permanent }	bidirectional symmetric	multipt multipt multipt	A FS A

<sup>1</sup> The definition of E (essential) and A (additional) can be found in Recommendation I.240.

3) Access

Signalling and OAM (Note 1)		User information		Support
Channel and rate	Protocols	Channel and rate	Protocols	
Circuit mode				
D(16)	I.430, I.440, I.441, I.450, I.451 (Note 2)	B(64)	I.430, U.202 (Note 3)	FS
D(64)	I.431, I.440, I.441, I.450, I.451 (Note 2)	B(64)	I.431, U.202 (Note 3)	FS
Packet mode				
D(16)	FS (Note 4)	D(16)	FS	FS

*Note 1* - Definition of protocols for OAM is for further study.

*Note 2* - Layer 2 and 3 protocols are for further study.

*Note 3* - Others are for further study.

*Note 4* - Subject to satisfying telex quality of service on D-channel.

6.9 *Dynamic description*

For further study.