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**ITU-T**

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STANDARDIZATION SECTOR  
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**F.171**

**OPERATIONS AND QUALITY OF SERVICE  
TELEMATIC SERVICE**

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**OPERATIONAL PROVISIONS RELATING TO  
THE USE OF STORE - AND - FORWARD  
SWITCHING NODES WITHIN THE  
BUREAUFAX SERVICE**

**ITU-T Recommendation F.171**

(Extract from the *Blue Book*)

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## NOTES

1 ITU-T Recommendation F.171 was published in Fascicle II.5 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.

## **Recommendation F.171**

### **OPERATIONAL PROVISIONS RELATING TO THE USE OF STORE-AND-FORWARD SWITCHING NODES WITHIN THE BUREAUFAX SERVICE**

#### **1 General provisions**

1.1 In accordance with Recommendations F.160 and F.170, Administrations may operate an international public facsimile service between public bureaux. Additionally, in accordance with Recommendation F.190, Administrations may operate a service between public bureaux and private subscribers' stations.

1.2 In the bureaufax service, it is not uncommon for the transmitted document to be scanned and transmitted several times as it progresses from the office of origin to the office of destination. With each rescan and retransmission, the quality of the document, as finally delivered to the addressee is progressively degraded. By the replacement of manual retransmission practices with switching nodes, employing store-and-forward techniques, document quality may be preserved. Quality may even be improved over current transmission practices through the use of error handling techniques between nodes and the use of data networks, rather than the telephone network, as the transmission medium,

1.3 This Recommendation states the operational provisions peculiar to the bureaufax service when store-and-forward facsimile switching nodes are employed within the international transmission of documents.

#### **2 Conditions of acceptance**

2.1 Documents for transmission within the bureaufax service and between subscriber stations and public bureaux shall conform to § 2 of Recommendation F.170.

#### **3 Composition of a facsimile transmission**

3.1 Every facsimile transmission shall include a transmittal sheet and the customer's document as defined in § 3 of Recommendation F.170

#### **4 Acceptance**

##### *4.1 Acceptance at a public bureau*

The acceptance of documents at the counter of a public bureau will conform to § 4 of Recommendation F.170.

##### *4.2 Acceptance from subscribers' stations*

4.2.1 A document for delivery through the bureaufax service may be accepted directly from the subscriber's station into store and forward node in the country of origination.

4.2.2 The customer will access the store and forward node in conformance with the provisions of Recommendation F.162. At the discretion of the administration in the country of origin, the customer must be a registered user of the service.

4.2.3 The Administration in the country of origin will provide users of the service with the information necessary to route the document through the store and forward node, and any interconnected store and forward node, to the appropriate public bureau in the country of destination. The addressing of such facsimile messages should use abbreviated dialling codes rather than explicit telephone numbers for the facsimile terminals in the destination bureau.

4.2.4 The correct addressing of the facsimile message will be the responsibility of the originating subscriber.

4.2.5 As for transmissions originating from a public bureau, messages entered into the bureaufax service by a subscriber must contain a transmittal sheet, in accordance with F.170, § 3.2, as the first page. The Administration in the country of origin will ensure that transmittal forms are available to its subscribers.

4.2.6 Acceptance of the facsimile document by the node will constitute acceptance into the bureaufax service.

4.2.7 Facsimile documents to be entered into the bureaufax service may, optionally, be accepted from text terminals in cases where the node can provide the necessary conversion to the appropriate facsimile format. In such cases, the transmittal sheet may be generated either by the originating terminal or by the node.

## **5 Transmission**

5.1 International bureaufax transmissions may involve store and forward switching nodes, typically at gateway locations, in three different ways:

- nodes in both the country of origin and country of destination,
- node located in the country of origin,
- node located in the country of destination.

In any case, each node will be programmed with abbreviated codes for delivering documents to inland public bureaux. These abbreviated codes will be made available to other administrations for the efficient routing of traffic.

### *5.1.1 Nodes in both countries*

5.1.1.1 Facsimile documents will be entered into the node both by public bureaux and by private subscribers.

5.1.1.2 Documents will be transmitted between nodes in accordance with Recommendation F.162, § 4.6. Wherever possible, the routing between nodes will employ networks designed specifically for the transmission of data to preserve a maximum quality of delivered document. This is important since the end-to-end transmission may still involve multiple scans and retransmissions.

5.1.1.3 If the quality of the document received at the public bureau in the country of destination is not satisfactory, the receiving bureau will contact the assistance operator at the node in the country of destination, who, following confirmation that the document held in store in the node is acceptable, will initiate a retransmission.

5.1.1.4 If the quality of the document held in store by the node in the country of destination is not satisfactory, the operator will contact the assistance operator at the node in the country of origin who, following confirmation that the document held in store there is acceptable, will initiate a retransmission.

5.1.1.5 If the quality of the document held in store by the node in the country of origin is not satisfactory, the operator will request retransmission from the originating public bureau or subscriber.

### *5.1.2 Node in the country of origin*

5.1.2.1 The international transmission from the node in the country of origin to the public bureau in the country of destination will comply with Recommendation F.170, § 5, with the following exceptions:

5.1.2.2 If a document received at the international receiving public station is not satisfactory, the international receiving public station will contact the assistance operator at the node in the originating country to request retransmission. The assistance operator will act in accordance with § 5.1.1.5 above.

### *5.1.3 Node in the destination country*

5.1.3.1 Except by bilateral agreement, the node in the destination country will accept facsimile transmissions from the country of origin in a manner emulating a facsimile terminal, i.e. the originating country's operator need not be knowledgeable of any special procedures to deposit the document into the node. In this case, transmission is in conformance with § 5 of Recommendation F.170 except that the node acts as the international receiving public facsimile station.

5.1.3.2 Documents received by the node in the above manner will be routed to the destination public bureau through manual intervention.

## **6 Delivery**

6.1 Delivery of facsimile messages by the destination public facsimile bureau will generally comply with § 6 of Recommendation F.170.

6.2 Delivery of bureaufax messages to subscribers' stations will generally comply with § 2 of Recommendation F. 190.

6.2.1 In cases where a store and forward node exists in the country of destination, the message will be transmitted to the subscribers' stations directly from the node, without recourse to an additional stage of printing and rescanning the document.

6.2.2 By bilateral agreement, the facsimile transmitting station in the country of origin may provide the node with sufficient information to effect automatic switching and retransmission of the message directly to subscribers' stations. Otherwise, transmission to subscribers' stations will be effected by manual intervention of the node operator.

6.2.3 By bilateral agreement in cases where a node exists only in the country of origin, facsimile messages may be transmitted directly from the node to subscribers' stations in the country of destination.

## **7 Other provisions**

Provisions relating to:

- Service facsimile correspondence
- Archives
- Charging, refunds and accounting
- Cancellation at the request of the sender
- List of public bureaux

will conform to the appropriate section of Recommendation F.170.