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## **MIME content-type for Internet Fax Full Mode**

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### **Abstract**

This memo defines a mechanism and formats for the Internet FAX Full Mode using a MIME content-type and an extended Message Disposition Notifications (MDN). Both of the MIME content-type and the extended MDN should be used by a mail user agent (UA) which is capable of Internet Fax Full Mode with capabilities exchange and confirmation of receipt.

The MIME content-type that is used by Internet Fax Full Mode capable agent (UA) or electronic mail gateway to request, to response, and to receive the capabilities of recipient. This content-type is intended to be machine-processable. Additional message headers are also defined to permit capabilities exchange in the Internet Fax Full Mode.

The extended Message Disposition Notifications (MDN) that is used by a mail user agent (UA) which is capable of Internet Fax Full Mode for processing confirmation. This content-type is intended to be machine-processable. Additional message headers are also defined to permit that the sender (of the message) requires Message Disposition Notifications (MDNs). MDN is "An Extensible Message Format for Message

Disposition Notification" in [RFC2298](#).

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## **1. Introduction**

This memo defines a mechanism and format for Internet FAX Full Mode with capabilities exchange and confirmation using a MIME content-type fax and an extended message disposition notifications (MDNs). Internet FAX Full Mode which has capabilities exchange and confirmation is defined in ITU-T F.185 [7] and T.37 [8]. The MIME content-type fax can be used to exchange Internet FAX recipient capabilities. An extended MDN will be used for terminal to terminal processing confirmation in Internet FAX Full Mode.

The purpose is to extend Internet Mail to support functionality of Internet Fax Full Mode. The protocol described in this memo provides for the capabilities exchange, in addition to those normally used in Internet Mail.

The MIME content-type fax will be used for terminal to terminal capabilities exchange in Internet FAX Full Mode. Capability exchange more than Internet FAX such as MS Word application or PDF file are out of scope.

The extended message disposition notifications (MDNs) for Internet FAX Full Mode. MDN is defined in "An Extensible Message Format for Message Disposition Notification" in [RFC2298](#) [3]. An extended MDN can be used to notify the sender of a message of any of several conditions that may occur after successful delivery, such as reception of the Internet FAX Full Mode or the recipient error in process of the Internet FAX Full Mode. The "message/disposition-notification" content-type defined herein is intended for use within the framework of the "multipart/report" content type defined in [RFC 1892](#) [6].

Additional attributes may also be defined to support "tunneling" of Internet Fax Full Mode through Internet Mail.

Internet FAX Full Mode is defined in F.185 as follows;

- (a) Capabilities of the terminals are exchanged.
- (b) An acknowledgment of receipt is exchanged between gateways

and may be transferred from the receiving terminal to sending terminal

- (c) The contents of standard messages used by the transmitting terminal are preserved

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#).

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### **1.1 Purposes**

The MIME content-type fax and the additional MIME content-type for extended message disposition notifications (MDNs) defined in this memo are expected to serve several purposes:

- (a) Allow a sender of Internet FAX Full Mode to request capabilities of recipient's Internet FAX Full Mode in terminal to terminal communication;
- (b) Notify capabilities of recipient's Internet FAX Full Mode to the sender of Internet FAX Full Mode.
- (c) Allow a sender of Internet FAX Full Mode to send image using full function of TIFF-FX based on notified capabilities of recipient's Internet FAX Full Mode and to send command and to request report of recipient's Internet FAX Full Mode;
- (d) Notify report of recipient's Internet FAX Full Mode to the sender of Internet FAX Full Mode with part of received message, and may notify capabilities
- (e) Inform human beings of the disposition of messages after Successful delivery of Internet FAX Full Mode message, in a manner which is largely independent of human language;
- (f) Allow Language-independed, yet reasonably precise, indications of the disposition of a message to be delivered in Internet FAX Full Mode.
- (g) Allow G3FAX applications such as Polling, Selective Polling, Subaddress, Relay, Password, BFT and NSF based on ITU-T T.30

protocol.

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## **1.2 Requirements**

These purposes place the following constraints on the capability exchange and confirmation protocol:

- (a) It must be readable by humans as well as being machine parsable for Internet FAX Full mode.
- (b) It must be provide enough information to allow Internet FAX Full Mode message senders to unambiguously associate the MIME content-type fax with the message that was sent and the original recipient address for which the MIME content-type fax is issued.
- (c) It must also be able to describe the disposition of a Internet FAX Full Mode message independent of any particular human language or of the terminology of any particular mail system.
- (d) The specification must be extensible in order to accommodate future requirements of Internet FAX Full Mode.

## **1.3 The MIME content-type fax**

For the purposes, the MIME content-type fax is defines as follows for Internet FAX Full Mode.

- (a) The MIME content-type fax is send automatically.  
The operator should recognize that  
Internet FAX full Mode sends the MIME content-type fax  
by default setting.
- (b) An empty message may be used for capability request.

#### **1.4 Extension from MDN**

For the purposes, MDS in [RFC2298](#) [3] is extended and modified as follows for Internet FAX Full Mode.

- (a)MDN is send automatically. The operator should recognize that  
Internet FAX full Mode sends MDN by default setting.

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## **2. Method of capability exchange and confirmation**

A communication between Internet FAX Full Mode machines consists of two phases that are the capability exchange phase and the message transmission and confirmation phase.

In the capability exchange phase, a sender of Internet FAX Full Mode sends a capability request using the MIME content-type fax. A recipient of Internet FAX Full Mode must immediately return message with its capabilities using the MIME content-type fax.

In the message transmission and confirmation phase, based on this reply messages, the sender sends message and command data using the MIME content-type fax and sends confirmation request using a request for extended MDN. The recipient must immediately returns confirmation message after the processing of image using the extended MDN. The confirmation message of the extended MDN includes human readable message, completion code, total received page, error page numbers, partial or full received message. The confirmation message may include capabilities of recipient using the MIME content-type fax.

Capability exchange phase and message transmission and confirmation phase are independent, and not required to succeeded. A sender may

perform capability exchange phase only when capabilities of the destination is registered in machine, and perform the message transmission and confirmation phase for every transmission.

A sender may not perform capability exchange phase when the transmitting message is LCD.

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## **2.1 The message/fax content-type**

The message/fax content-type is defined as follows:

MIME type name:	message
MIME subtype name:	fax
Optional parameters:	none
Encoding considerations:	"7bit" encoding is sufficient and MUST be used to maintain readability when viewed by non-MIME mail readers.
Security considerations:	discussed in <a href="#">section 5</a> of this memo.

The message/fax report type for use in the multipart/report is "fax".

The body of a message/fax consists of one or more "fields" formatted according to the ABNF of [RFC 822](#) header "fields" (see [\[2\]](#)).

Using the ABNF of [RFC 822](#), the syntax of the message/fax content is as follows:

```
fax-content = [ reporting-ua-field CRLF ]
              [ fax-gateway-field CRLF ]
              [ original-recipient-field CRLF ]
              final-recipient-field CRLF
              [ original-message-id-field CRLF ]
              disposition-field CRLF
              *( failure-field CRLF )
              *( error-field CRLF )
              *( warning-field CRLF )
              *( extension-field CRLF )
```

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### **3. Capability exchange phase**

A sender of Internet FAX Full Mode sends a capability request using a request for the MIME content-type fax. A recipient of Internet FAX Full Mode must immediately return a message with capabilities of Internet FAX Full Mode using the MIME content-type fax. Capabilities of Internet FAX Full Mode is expressed using FCF and FIF in CCITT T.30.

#### **3.1 Capability request**

Capability request is requested by including the MIME content-type fax. Further information to be used by the recipient of Internet FAX Full



Mode in generating the capability request may be provided.

A capability request should contain a Message-ID header as specified in [RFC 822](#)[\[2\]](#).

#### **[3.1.1](#) Fax-To Header**

A request that the receiving Internet FAX Full Mode user agent issue fax notifications is made by placing a Fax-To header into the message. The syntax of the header, using the ABNF of RFC [822](#) [\[2\]](#), is

```
fax-request-header = "Fax-To" ":" 1#mailbox
```

The mailbox token is as specified in [RFC 822](#) [\[2\]](#).

#### **[3.1.2](#) Fax-Options Header**

Fax-Options header provides a request of capability exchange in Internet FAX Full Mode.

```
Fax-Options =  
    "Fax-Options" ":"  
        fax-parameters
```

```
fax-parameters =  
    parameter *("; " parameter)  
  
parameter = "G3Fax-capability-request" "=" "required"
```

### **3.1.3 Message-ID**

A message that contains capability request for Internet FAX Full Mode should contain a Message-ID header as specified in [RFC 822](#)[2].

### **3.2 capability response**

A capability response message is the MIME content-type fax.

- (a) The report-type parameter of the multipart/report content is "fax".
- (b) The first component of the multipart/report contains a human readable explanation, as described in [RFC 1892](#) [6].
- (c) The second component of the multipart/report is of content-type message/fax, described in section of this document.

The capability response must be addressed to the address from the Fax-To header from the original message for which the capability response is being generated.

The [RFC822](#) From field of the capability response MUST contain the address of the Internet FAX Full Mode machine for which the capability response is being issued.

#### **[3.2.1](#) The message/fax content-type**

The message/fax content-type for capability response message is as defined in the section of this document.

The syntax of the message/fax content is as defined in the section of this document.

#### **[3.2.2](#) Final-Recipient-field**

The Final-Recipient field indicates the recipient for which the capability response is being issued.

#### **[3.2.3](#) Original-message-ID**

The Original-Message-ID field indicates the message-ID of the message for which the capability response is being issued. This field must be present.

#### **3.2.4 Fax-field**

The Fax field indicates the action performed by the recipient of Internet FAX Full Mode. This field must be present. Fax-modifier\$B!J(J G3Fax-capability-request\$B!K(J will be used for capability response.

The syntax for the Fax field is:

```
Fax: automatic-action/FAX-sent-Automatically
      ; processed / G3Fax-capability-request
```

#### **3.2.5 Extension-field**

Additional Fax field is defined for capability response. Capabilities of recipient is expressed using FCF and FIF in T30 frame format [\[5\]](#).

```
field = "G3Fax-t30frame" ":" G3Fax-t30frame-field

G3Fax-t30frame-field = parameter * ( ";" parameter )

parameter = "G3Fax-t30frame-parameter"

G3Fax-t30frame-parameter =
    "G3Fax-t30frame" "=" t30-fcf [ "," t30-fif ]
```

#### **4. message transmission and confirmation phase**

The sender sends message and command data using the MIME content-type fax based on previously received messages from the recipient Internet FAX Full Mode and sends confirmation request using extended MDN.

The recipient SHOULD return confirmation message immediately after the processing of image using extended MDN.

The confirmation message includes human readable message, completion code, total received page, error page numbers, part or full message of received using extended MDN and capabilities of recipient using the MIME content-type fax.

##### **4.1 message**

The sender sends message and command data based on previous knowledge of recipient Internet FAX Full Mode using the MIME content-type fax.

##### **4.2 Message transmission and confirmation request**

Confirmation request message is requested by including the extended MDN with the message. Further information to be used by the recipient Internet FAX Full Mode in generating the confirmation request may be provided by including the extended MDN.

A message that contains confirmation request, should contain the extended MDN.

A message that contains confirmation request, should contain a Message-ID header as specified in [RFC 822\[2\]](#).

###### **4.2.1 Fax-To Header**

A request that the receiving Internet FAX Full mode issue confirmation is made by placing a Fax-To header into the message.

#### [4.2.2](#) Disposition-Notification-Options Header

Disposition-Notification-Options header provides a request of confirmation and command in Internet FAX Full Mode. Command is expressed using FCF and FIF defined in CCITT T.30 frame[5].

```
Disposition-Notification-Options =  
    "Disposition-Notification-Options" ":"  
        disposition-notification-parameters  
  
disposition-notification-parameters = parameter *(";" parameter)  
  
parameter = "G3Fax-report-request" "=" "required"  
  
parameter = "G3Fax-frame" "=" t30-fcf [ "," t30-fif ]
```

#### [4.2.3](#) Message-ID

A message that contains confirmation request for Internet FAX Full Mode should contain a Message-ID header as specified in [RFC 822](#) [2].

### **4.3 confirmation**

A confirmation message is a MIME message with a top level content-type of multipart/report (defined in [RFC 1892](#) [6]).

- (a) The report-type parameter of the multipart/report content is "disposition-notification".
- (b) The first component of the multipart/report contains a human readable explanation of the MDN, as described in [RFC 1892](#).
- (c) The second component of the multipart/report is of content-type message/disposition-notification, described in section of this document.
- (d) If the original message or a portion of the message or report is to be returned to the sender. The decision of whether or not to return the message or report is up to the Internet FAX Full Mode recipient.

The confirmation must be addressed to the address from the Disposition-Notification-To header from the original message for which the confirmation is being generated.

The From field of the message header of the confirmation must contain the address of the Internet FAX Full Mode machine for which confirmation is being issued.

#### **4.3.1 The message/disposition-notification content-type**

The message/disposition-notification content-type for confirmation message is as defined in [RFC2298](#)[3].

The syntax of the message/disposition-notification content is as defined in [RFC2298](#)[3].

#### **4.3.2 final-recipient-field**

The Final-Recipient field indicates the recipient of Internet FAX for which the confirmation is being issued.

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#### [4.3.3](#) **Original-message-ID**

The Original-Message-ID field indicates the message-ID of the message for which the confirmation is being issued. This field must be present.

#### [4.3.4](#) **disposition-field**

The Disposition field indicates the action performed by the recipient of Internet FAX Full Mode. This field must be present. disposition-modifier\$B!J(J G3Fax-report-request\$B!K(J will be used for confirmation.

The syntax for the Disposition field is:

Disposition: automatic-action/MDN-sent-Automatically  
                  ; processed / G3Fax-report-request

#### [4.3.5](#) **extension-field**

(1) confirmation

Additional MDN field is defined for confirmation. confirmation of recipient is expressed using result code, received page number and error page number.

G3Fax-Report: G3Fax-Results=code  
                  ;G3Fax-Pages=received page number  
                  ;G3Fax-Errorpage=error page number

#### [4.3.6](#) **capability response**

A capability response message is the MIME content-type fax as defined in Sec. 3.2.



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## **5. Security considerations**

The following security considerations apply when using the MIME content-type fax for Internet FAX Full Mode:

## **6. Collected Grammar**

### **6.1 MIME content-type fax**

The grammar for the MIME content-type fax will be described.

NOTE: The following lexical tokens are defined in [RFC 822](#): atom, CRLF, mailbox, msg-id, text. The definitions of attribute and value are as in the definition of the Content-Type header in [RFC 2045](#) [[4](#)].

Message headers:

fax-request-header = "Fax-To" ":" 1#mailbox

Fax-Options =  
    "Fax-Options" ":"  
    fax-parameters

fax-parameters = parameter \*(";" parameter)

parameter = attribute "=" importance "," 1#value

importance = "required" / "optional"

original-recipient-header =  
    "Original-Recipient" ":" address-type ";" generic-address

Report content:

```
fax-content = [ reporting-ua-field CRLF ]
               [ fax-gateway-field CRLF ]
               [ original-recipient-field CRLF ]
               final-recipient-field CRLF
               [ original-message-id-field CRLF ]
               fax-field CRLF
               *( failure-field CRLF )
               *( error-field CRLF )
               *( warning-field CRLF )
               *( extension-field CRLF )

address-type = atom

mta-name-type = atom

reporting-ua-field = "Reporting-UA" ":" ua-name
                   [ ";" ua-product ]
```

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```
ua-name = *text

ua-product = *text

fax-gateway-field = "FAX-Gateway" ":" mta-name-type ";" mta-name

mta-name = *text

original-recipient-field =
    "Original-Recipient" ":" address-type ";" generic-address

generic-address = *text

final-recipient-field =
    "Final-Recipient" ":" address-type ";" generic-address

fax-field = "Fax" ":" fax-mode ";"
            fax-type
            [ '/' fax-modifier
              *( "," fax-modifier ) ]

fax-mode = action-mode "/" sending-mode

action-mode = "manual-action" / "automatic-action"
```

```

sending-mode = "FAX-sent-manually" / "FAX-sent-automatically"

disposition-type = "displayed"
                  / "dispatched"
                  / "processed"
                  / "deleted"
                  / "denied"
                  / "failed"

fax-modifier = ( "error" / "warning" )
               / ( "superseded" / "expired" /
                  "mailbox-terminated" )
               / fax-modifier-extension

fax-modifier-extension = atom

original-message-id-field = "Original-Message-ID" ":" msg-id

failure-field = "Failure" ":" *text

error-field = "Error" ":" *text

warning-field = "Warning" ":" *text

extension-field = extension-field-name ":" *text

extension-field-name = atom

```

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### [6.1.1](#) Fax-Options header parameter names

#### [6.1.1.1](#) G3Fax-capability-request

This is the parameter for Internet FAX capability request.

(a)proposed parameter name

G3Fax-capability-request

(b)syntax

```

Fax-Options :
    "Fax-Options" ":"
    "G3Fax-capability-request"$B!(J)=" "required"

```

(c)parameter values

G3Fax-capability-request is capability request of Internet  
FAX Full mode

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#### [6.1.1.2](#) **G3Fax-t30frame-parameter**

This is the parameter for Recipient capabilities of Internet FAX Full Mode.

(a)proposed parameter name

G3Fax-t30frame-parametert

(b)syntax

Fax-Options :  
    "Fax-Options" ":"  
    fax-parameters

```
fax-parameters =  
    parameter * ( ";" parameter )  
  
parameter = "G3Fax-t30frame-parameter"  
  
G3Fax-t30frame-parameter =  
    "G3Fax-t30frame" "=" t30-fcf [ "," t30-fif ]  
  
t30-fcf = *text  
  
t30-fif = *text
```

(c)parameter values

t30-fcf=\*text is hexadecimal expression of FCF octet in T.30.  
Some FCFs are as follows;

NSF	20
CSI	40
DIS	80
NSS	23
TSI	43
DCS	83

t30-fif=\*text is Hexadecimal expression of FIF octets in T.30.  
The first octet of FIF is located in first character in text.  
LSB of octet is the first bit of FIF.

### [6.1.2](#) fax modifier names

#### [6.1.2.1](#) G3Fax-capability-request

(a)fax-modifier name

G3Fax-capability-request

(b)semantics

capability request of Internet FAX full Mode

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### [6.1.3](#) MIME field names

#### [6.1.3.1](#) G3Fax-t30frame

This is the field for Command data from sender in Internet FAX Full Mode.

(a)field name

G3Fax-t30frame-field

(b)syntax

field = "G3Fax-t30frame" ":" G3Fax-t30frame-field

G3Fax-t30frame-field = parameter \* ( ";" parameter )

parameter = "G3Fax-t30frame-parameter"

G3Fax-t30frame-parameter =  
"G3Fax-t30frame" "=" t30-fcf [ "," t30-fif ]

t30-fcf = \*text

t30-fif = \*text

(c)field value

t30-fcf =\*text is hexadecimal expression of FCF in T.30

Some FCFs are as follows;

NSF	20
CSI	40
DIS	80
NSS	23
TSI	43
DCS	83

t30-fif =\*text is Hexadecimal expression of FIF octets in T.30.  
The first octet of FIF is located in first character in text.  
LSB of octet is the first bit of FIF.



Additional grammar for MDN is described in IANA registration form.

### **6.2.1 IANA registration for Disposition-Notification-Options header parameter names**

#### **6.2.1.1 G3Fax-report-request**

This is the parameter for Internet FAX confirmation request.

(a)proposed parameter name

G3Fax-report-request

(b)syntax

```
Disposition-Notification-Options :  
    "Disposition-Notification-Options" ":"  
    "G3Fax-report-request"$B!!(J"=" "required"
```

(c)parameter values

G3Fax-report-request is confirmation request of Internet FAX Full Mode.

### **6.2.2 IANA registration for disposition modifier names**

#### **6.2.2.1 G3Fax-report-request**

(a)disposition-modifier name

G3Fax-report-request

(b)semantics

capability request of Internet FAX Full Mode

### [6.2.3](#) IANA registration for MDN extension field names

#### [6.2.3.1](#) G3Fax-Report

This is the field for confirmation of Internet FAX Full Mode

(a)field name

G3Fax-Report-field

(b)syntax

```
field = "G3Fax-Report" ":" results
                        ; pages
                        ; errorpage

results = "G3Fax-Results" "=" code

pages = "G3Fax-Pages" "=" numeric

errorpage = "G3Fax-Errorpage" "=" numeric * ( "," numeric )
```

(c)field value

```
results =code is as follows;
"00"    Successful reception
"01"    Unsuccessful reception
"02"    Capabilities mismatch. The receiving terminal cannot
        interpret the message data correctly
"03"    does not support the format used in this message
"04"    does not support relay feature

pages =numeric is total page.

errorpage =numeric is error page number
```

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## **7. Example**

### **7.1 Capability request**

Date: Wed, 20 Sep 1995 00:19:00 (EDT)-0400  
From: Jane Sender <Jane\_Sender@huge.com>  
Message-Id: <199509200019.12345@huge.com>  
Subject: Internet FAX Full Mode Capability Request  
To: Tom Recipient <Tom\_Recipient@mega.edu>  
Fax-To: Jane\_Sender@huge.com  
Fax-Options: G3Fax-capability-request=required

### **7.2 Capability response**

Date: Wed, 20 Sep 1995 00:19:00 (EDT)-0400  
From: Tom Recipient <Tom\_Recipient@mega.edu>  
Message-Id: <199509200020.12345@mega.edu>  
Subject: Internet FAX Full Mode Capability Response  
To: Jane Sender <Jane\_Sender@huge.com>  
MIME-Version: 1.0  
Content-Type: multipart/report; report-type=fax;  
                  boundary="RAA14128.773615766/mega.edu"

--RAA14128.773615766/mega.edu

The message sent on 1995 Sep 19 at 00:18:00 (EDT) -0400 to  
Tom Recipient <Tom\_Recipient@mega.edu> with subject " Internet FAX Full  
Mode Capability Request " has been processed in Internet FAX Full Mode.

--RAA14128.773615766/mega.edu

Content-Type: message/fax

Reporting-UA: Toms-pc.cs.mega.edu; IFAX-FullMode  
Original-Recipient: [rfc822](#);Tom-Recipient@mega.edu  
Final-Recipient: [rfc822](#);Tom-Recipient@mega.edu  
Original-Message-ID: <199509200019.12345@huge.com>  
Disposition: automatic-action/FAX-sent-automatically;  
                  processed / G3Fax-capability-request  
G3Fax-t30frame:G3Fax-frame=40,3333333320323220313131;  
                  G3Fax-frame=20,000011;  
                  G3Fax-frame=80,00CF79

--RAA14128.773615766/mega.edu--

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### **7.3 Message and confirmation request**

Date: Wed, 20 Sep 1995 00:21:00 (EDT)-0400  
From: Jane Sender <Jane\_Sender@huge.com>  
Message-Id: <199509200021.12345@huge.com>  
Subject: Internet FAX Full Mode Image Transmission  
To: Tom Recipient <Tom\_Recipient@mega.edu>  
MIME-Version: 1.0  
Disposition-Notification-To: Jane\_Sender@huge.com  
Fax-To: Jane\_Sender@huge.com  
Fax-Options: G3Fax-report-request=required;  
                  G3Fax-frame=43,3737373720383820393939;  
                  G3Fax-frame=23,000011;  
                  G3Fax-frame=83,00C679  
Content-Type: multipart/ mixed;  
              boundary="RAA14128.773615768/ huge.com"

--RAA14128.773615768/huge.com  
Content-type: text/plain; charset=us-ascii

[original text message goes here]

--RAA14128.773615768huge.com  
Content-type: image/ tiff; application=faxbw  
Content-Transfer-Encoding: base64

[original TIFF-FX message goes here]

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#### **7.4 Confirmation**

Date: Wed, 20 Sep 1995 00:22:00 (EDT) -0400  
From: Tom Recipient <Tom\_Recipient@mega.edu>  
Message-Id: <199509200022.12345@mega.edu>  
Subject: Internet FAX Full Mode Disposition notification  
To: Jane Sender <Jane\_Sender@huge.com>  
MIME-Version: 1.0  
Content-Type: message/disposition-notification

Reporting-UA: Toms-pc.cs.mega.edu; IFAX-FullMode  
Original-Recipient: [rfc822](#);Tom-Recipient@mega.edu  
Final-Recipient: [rfc822](#);Tom-Recipient@mega.edu  
Original-Message-ID: <199509200021.12345@huge.com>  
Disposition: automatic-action/MDN-sent-automatically;  
                    processed / G3Fax-report-request  
G3Fax-Report:G3Fax-Results=00;  
                    G3Fax-Pages=5

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## **8. Acknowledgments**

Dan Wing provided valuable comments on this draft.

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- [5] ITU-T (CCITT), "Procedures for Document Facsimile Transmission in the General Switched Telephone Network ", ITU-T (CCITT) Recommendation T.30.
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- [7] ITU-T, "Internet Facsimile: Guidelines for the Support of the Communication of Facsimile Documents", ITU-T Recommendation F.185
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