

Network Working Group  
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Greg Vaudreuil  
Octel Network Services  
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**The Multipart/Report Content Type  
for the Reporting of  
Mail System Administrative Messages**

[<draft-ietf-notary-mime-report-03.txt>](#)

**1. Status of this Memo**

This document is an Internet Draft. Internet Drafts are working documents of the Internet Engineering Task Force (IETF), its Areas, and its Working Groups. Note that other groups may also distribute working documents as Internet Drafts.

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**2. The Multipart/Report MIME content-type**

The Multipart/Report MIME content-type is a general "family" or "container" type for electronic mail reports of any kind. Although this memo defines only the use of the Multipart/Report content-type with respect to delivery status reports, mail processing programs will benefit if a single content-type is used to for all kinds of reports.

The Multipart/Report content-type is defined as follows:

- MIME type name: multipart
- MIME subtype name: report
- Required parameters: boundary, report-type
- Optional parameters: none
- Encoding considerations: 7bit should always be adequate
- Security considerations: see [section 5](#) of this memo.

The syntax of Multipart/Report is identical to the Multipart/Mixed content type defined in [[MIME](#)]. When used to send a report, the Multipart/Report content-type must be the top-level MIME content type for any report message. The report-type parameter identifies the type of report. The parameter is the MIME content sub-type of the second body part of the Multipart/Report.

User agents and gateways must be able to automatically determine that a message is a mail system report and should be processed as such. Placing the Multipart/Report as the outermost content provides a mechanism whereby an auto-processor may detect through

The Multipart/Report content-type contains either two or three sub-parts, in the following order:

- (1) [required] The first body part contains human consumable message. The purpose of this message is to provide an easily-understood description of the condition(s) that caused the report to be generated, for a human reader who may not have an user agent capable of interpreting the second section of the Multipart/Report.

The text in the first section text may be in any MIME standards-track content-type, charset, or language. Where a description of the error is desired in several languages or several media, a Multipart/Alternative construct may be used.

This body part may also be used to send detailed trace information that cannot be easily formatted into a Message/Report body part.

- (2) [required] A machine parsable body part containing an account of the reported message handling event. The purpose of this body part is to provide a machine-readable description of the condition(s) which caused the report to be generated, along with details not present in the Text/Plain body part that may be useful to human experts. An initial body part, Message/delivery-status is defined in [[DSN](#)]

- (3) [optional] A body part containing the returned message or a portion thereof. This information may be useful to aid human experts in diagnosing problems. (Although it may also be useful to allow the sender to identify the message which the report was issued, it is hoped that the envelope-id and original-recipient-address returned in the Message/Report body part will replace the traditional use of the returned content for this purpose.)

Return of content may be wasteful of network bandwidth and a variety of implementation strategies can be used. Generally the sender should choose the appropriate strategy and inform the recipient of the required level of returned content required. In the absence of an explicit request for level of return of content such as that provided in [[DRPT](#)], the agent which generated the delivery service report should return the full message content.

Vaudreuil

Expires 11/5/95

[Page 2]

### **3. The Text/RFC822-Headers MIME content-type**

The Text/RFC822-Headers MIME content-type provides a mechanism to label and return only the [RFC 822](#) headers of a failed message. These headers are not the complete message and should not be returned as a Message/RFC822. The returned headers are useful for correlating the erred message and for diagnostics based on the received: lines.

The Text/RFC822-Headers content-type is defined as follows:

- MIME type name: Message
- MIME subtype name: [RFC822](#)-Headers
- Required parameters: None
- Optional parameters: none
- Encoding considerations: 7 bit is sufficient for normal [RFC822](#) headers, however, if the headers are broken and require encoding, they may be encoded in quoted-printable.
- Security considerations: see [section 5](#) of this memo.

The Text/RFC822-headers body part should contain all the [RFC822](#) header lines from the message which caused the report. The [RFC822](#) headers include all lines prior to the blank line in the message. They include the MIME-Version and MIME Content- headers.

Vaudreuil

Expires 11/5/95

[Page 3]

#### **4. References**

[DSN] Moore, K., Vaudreuil, G., "An Extensible Message Format for Delivery Status Reports", Internet-Draft.

[RFC822] Crocker, D., "Standard for the format of ARPA Internet Text Messages", STD 11, [RFC 822](#), UDEL, August 1982.

[MIME] Borenstein, N., Freed, N., "Multipurpose Internet Mail Extensions", [RFC 1521](#), Bellcore, Innosoft, June 1992.

[DRPT] Moore, K., "SMTP Service Extension for Delivery Status Notifications", Internet Draft.

#### **5. Security Consideration**

Automated use of report types without authentication presents several security issues. Forging negative reports presents the opportunity for denial-of-service attacks when the reports are used for automated maintenance of directories or mailing lists. Forging positive reports may cause the sender to incorrectly believe a message was delivered when it was not.

#### **6. Author's Address**

Gregory M. Vaudreuil  
Octel Network Services  
17060 Dallas Parkway  
Dallas, TX 75248-1905  
Greg.Vaudreuil@Octel.com  
Voice/Fax: +1-214-733-2722

Vaudreuil

Expires 11/5/95

[Page 4]