4.3 E-mail Style Processing Mode

In this processing Mode, Process Result Messages are retrieved from NACCS Center server after a certain period of time. Therefore, the response time for Process Request Messages is not as quick as for the interactive processing mode (SMTP Two-Way).

Moreover, for E-mail Style Processing Mode, there is the E-mail Style Processing Mode for NACCS EDI messages and the E-mail Style Processing Mode for EDIFACT messages. However, they are basically the same method except for the difference in message structure.

Furthermore, E-mail Style Processing Mode enables the user to send more than one Process Request Messages in a single request. Process Result Messages, however, need to be retrieved (or received) from NACCS Center server in a batch after a certain period of time.

4.3.1 E-mail Style Processing Mode for NACCS EDI messages
(1)   Outline of Processing Mode (other than EDIFACT messages)

For E-mail Style Processing Mode for NACCS EDI messages, software developed by the user is used.

Figure 4.3.1 shows outline of E-mail Style Processing Mode for processing NACCS EDI messages. For information on sending E-mail, please refer to "4.6.1 E-mail".
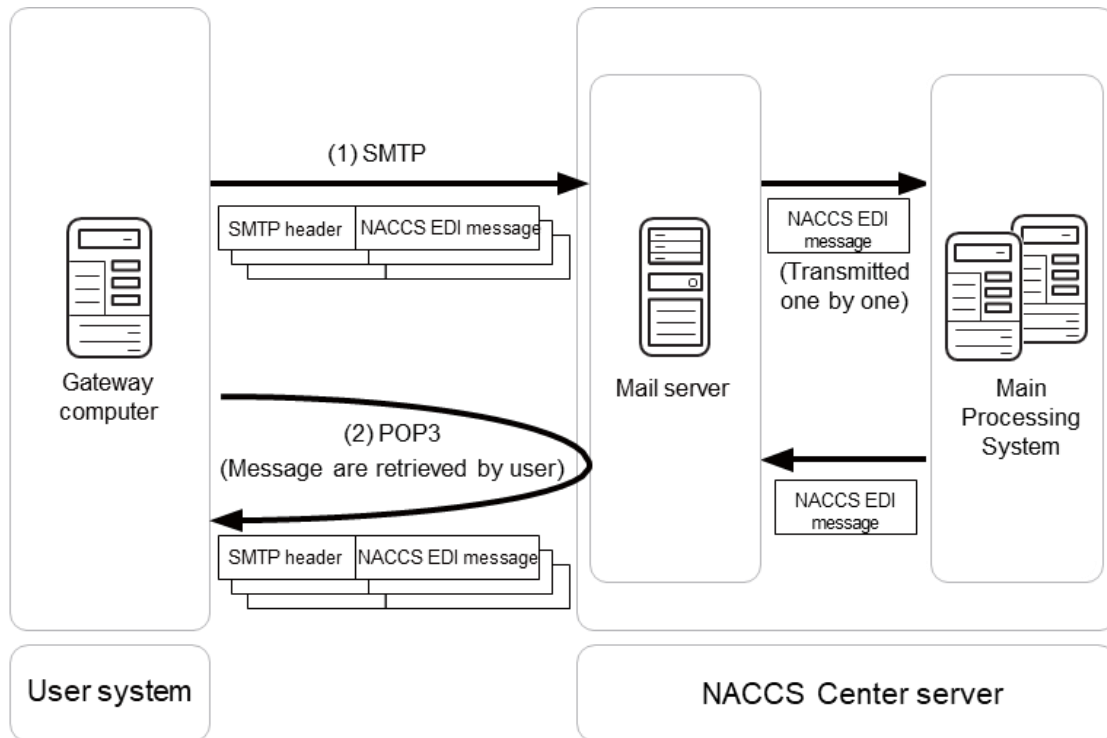

Figure 4.3.1   Outline of Connection Mode of E-mail Style Processing Mode for NACCS EDI Messages

(A) The user creates and sends an NACCS EDI message that contains data required for the relevant procedure to the E-mail server over the SMTP protocol. More than one message can be sent at a time.

(B) Messages transmitted to the E-mail server are transferred to the Main Processing System one by one. The Main Processing System then processes the message and forwards a Process Result Message to the user's mailbox on the E-mail server. Then the user retrieves the Process Result Message from the mailbox over the POP3 protocol.

(2) Details of the Communications Protocol

In E-mail Style Processing Mode for NACCS EDI messages, TCP/IP is used for the network and transport layers, and regarding the upper layer, SMTP for sending Process Request Messages and POP3 for retrieving Process Result Messages are used as communications protocols.

(A) SMTP specifications in transmission of Process Request Message

1) Applicable SMTP commands

Table 4.3.1 shows list of SMTP commands used in E-mail Style Processing Mode for NACCS EDI messages and their responses.

Table 4.3.1 List of SMTP Command in transmission

Command	Outline	Parameter	Response on NACCS's E-mail Server (Normal response)
Request to open a connection	Request to open a TCP connection	Connection domain name, port number	220
HELO	To declare use of the communications channel and to identify the host	Sender host name (Domain name)	250
MAIL	To start the　E-mail transaction	FROM: Sender name	250
RCPT	To specify the receiver of the E-mail	TO: Receiver user name	250
DATA	Begin sending E-mail body	Message data	354
RSET	To stop forwarding the E-mail	-	250
QUIT	Close the connection	-	221

2)   SMTP command sequence for sending a Process Request Message

Figure 4.3.2 shows a sequence of SMTP commands issued for transmission of Process Request Messages from a user system to NACCS Center server. Table 4.3.2 shows description of each command.
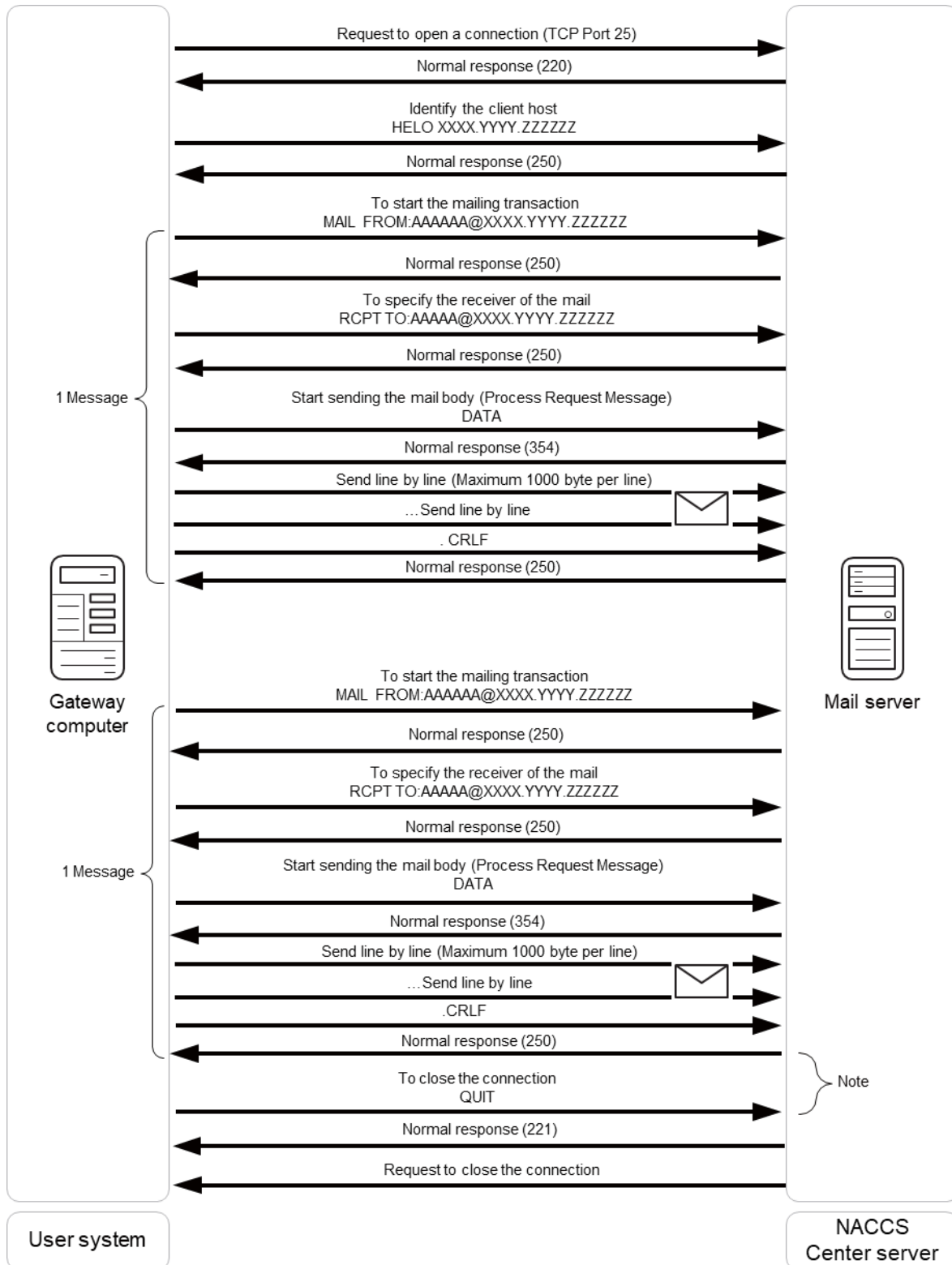

Figure 4.3.2 SMTP Command Sequence for Sending a Process Request Message
(Example of 2 messages in a single connection session to the E-mail server)

(Note) In Figure 4.3.2, if the gateway computer on a user system won't issue a QUIT command within two minutes after all messages are sent, the NACCS's E-mail Server will prompt a connection timeout and forcibly close the current connection. Therefore, when using E-mail Style Processing Mode, the QUIT command must be issued upon the completion of transmission of all Process Request Messages.

Table 4.3.2 Description about Command when Sending SMTP

Item No.	Command	Description
1	Request to open a connection	User requests connection to NACCS's E-mail Server at Port 25. NACCS's E-mail Server sends Response Code 220 as a normal response. IP address for NACCS's E-mail Server can be obtained from NACCS Center's DNS.
2	HELO Domain name	User executes command after setting domain name for a user system. NACCS's E-mail Server opens SMTP connection if server is available. NACCS's E-mail Server sends Response Code250 as a normal response. NACCS center notifies a user system domain name in advance.
3	MAIL FROM: E-mail address	User executes command after setting E-mail address for the user's system. NACCS's E-mail Server sends Response Code 250 as a normal response. NACCS center notifies user's E-mail address in advance.
4	RCPT TO: E-mail address	User executes command after setting E-mail address for NACCS Center server. NACCS's E-mail Server sends Response Code 250 as a normal response. NACCS center notifies E-mail address for NACCS Center server in advance.
5	DATA	User executes command to start transmission of Process Request Message. NACCS's E-mail Server sends Response Code 354 as a normal response. After that, user can send the message (including communications protocol header).
6	Send E-mail body	User sends Process Request Message in accordance with NACCS Procedure Specification. At the end edge of a Process Request Message, only a line with a dot (.) can be sent. After receiving the end edge, NACCS's E-mail Server sends Response Code 250 as a normal response. * It is necessary to make a line (CRLF) after each 1,000 bytes, but because in the NACCS EDI specification, a new line (CRLF) will be made within 1,000 bytes, it is not necessary for user to be aware of it. * The end of the message is recognized from

Item No.	Command	Description
		"<CRLF>.<CRLF>" in SMTP. If a message contains a line beginning with ".", a user system should add the dummy "." just before that. The NACCS's E-mail Server removes the dummy "." and forwards the message to the Main Processing System.
7	RSET	If the user executes this command, it will return to the status it was at after HELO. NACCS's E-mail Server sends Response Code 250 as a normal response. (Normally, it is not necessary to execute this command).
8	QUIT	User closes the SMTP connection. NACCS's E-mail Server sends Response Code 250 as a normal response.

(Note 1) Response code of SMTP

There are optional characters behind 3 digits of each response code, but only refer to these 3 first digits.

Example: Response of HELO

250 XXXX.YYYY.ZZZZZZ
↑

Only refer to the response code and carry out the settlement methods described in the Table 4.3.3.

* Reason: Because rear characters can be changed depending on Specification
changes in NACCS Center server.

(Note 2) Timeout observation

The user system must monitor SMTP connection timeouts to detect any failure in the NACCS's E-mail Server or network.

In this specification, more than one message can be sent in one connection, and as the timeout period of SMTP connection cannot be prescribed, the monitoring time must be decided based on operation methods applied by user.

3) Settlement in abnormal cases

Settlement methods in case if an error occurs when sending SMTP are described in the Table 4.3.3.

Table 4.3.3 Settlement methods for sequential errors of SMTP

Item No.	Command	Estimated errors and settlement methods
1	Request to open a connection	User sends connection request to NACCS's E-mail Server but request is not accepted. Causes and resolution methods: • The destination IP address is faulty. →Make sure connection is established to IP address inquired and obtained from NACCS's DNS. • The destination port number is faulty. → Determine if a request is sent to open a connection to port number 25 or not. • NACCS Center server is under maintenance. → Information about maintenance of NACCS Center server is announced to the public on NACCS Information, so that should be checked. If under maintenance, re-send the request to open a connection after the maintenance work is finished. • NACCS Center server or network is damaged. → Re-send another request to open a connection after a while. If it does not recover after a long period of time, send an investigation request to the Help desk of NACCS Center. The information on damages is also updated on NACCS Information. The information on the server's maintenance or damages used for connection test will not be notified on NACCS Information, if the server cannot be connected even in the time when the connection test is done, confirm the situation with NACCS Center.
2	HELO	Errors in response (except for normal responses (250)) are returned. Causes and resolution methods: 1) For syntax error (500) → Confirm that character string of HELO command is correct. 2) For command sequences error (503) → Execute the command with the right sequences described in the Figure 4.3.2. Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
3	MAIL FROM	Errors in response (except for normal responses (250)) are returned. Causes and resolution methods: 1) For syntax error (500) or parameter error (501) or domain name error (553). → Confirm that character string of MAIL command is correct. 2) For command sequences error (503) → Execute the command with the right sequences described in the Figure 4.3.2. Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

Item No.	Command	Estimated errors and settlement methods

4	RCPT TO	Errors in response (except for normal responses (250)) are returned.
		Causes and resolution methods:
		1) For syntax errors (500) or parameter errors (501) or domain name errors (553).
		   → Confirm that the character string of the RCPT command is correct.
		2) For command sequences error (503)
		   → Execute the command with the right sequences described in the Figure 4.3.2.
		
		Timeout due to no response from NACCS's E-mail Server.
		Causes and resolution methods:
		There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

5	DATA	Errors in response (except for normal responses (354)) are returned.
		Causes and resolution methods:
		1) For syntax error (500)
		   → Confirm that character string of DATA command is correct.
		2) For command sequences error (503)
		   → Execute the command with the right sequences described in the Figure 4.3.2.
		
		Timeout due to no response from NACCS's E-mail Server.
		Causes and resolution methods:
		There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

6	Send Process Request Message	Errors occur during communication. Causes and resolution methods: As NACCS's E-mail Server can be damaged, re-send the request after a while. If it does not recover after a long period of time, request the help desk at the NACCS Center to investigate.
7	RSET	Errors in response (except for normal responses (250)) are returned. Causes and resolution methods: 1) For syntax error (500) → Confirm that character string of RSET command is correct. Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
8	QUIT	Errors in response (except for normal responses (221)) are returned. Causes and resolution methods: 1) For syntax error (500) → Confirm that character string of the QUIT command is correct.
9	Others	Detect abnormalities during communication. Causes and resolution methods: There is a chance that damage could occur, so re-send the request to open a connection.

(B)   POP3 specifications when receiving a Process Result Message

1) Available POP3 commands

In principle, POP3 (Post Office Protocol version 3) in this mode shall comply with "Request for Comments" (RFC 1939). However, APOP authentication, one of the authentication exchange methods, is not supported.

POP3 commands used in E-mail Style Processing Mode for NACCS EDI messages are listed in Table 4.3.4:

Table 4.3.4   List of Available POP3 Commands

Command	Outline	Parameter	Response on NACCS's E-mail Server (Normal response)
Request to open a connection	Request to open a TCP connection	Connection domain name, port number	+OK
USER	To send E-mail address	E-mail address	+OK
PASS	To send mailbox password	Mailbox Password	+OK
STAT	To inquire about the number of E-mail messages and total size of E-mail messages	-	+OK Number of messages Total size of messages
LIST	To inquire about all message information	-	+OK message number message size • • • message number message size .
	To inquire about specific message information	Message number	+ OK message number message size
RETR	To request to retrieve message	Message number	+OK Procedure message (more than 1 line) .
DELE	To request message deletion	Message number	+OK
QUIT	End connection (completion notice)	-	+OK

2) POP3 command sequence in receipt of a Process Result Message

Figure 4.3.3 shows a sequence to retrieve Process Result Messages over POP3 in E-mail Style Processing Mode. This sequence is an example of the use of STAT command when obtaining the number of Process Result Messages when connecting to the E-mail server. Table 4.3.5 shows description of each command.
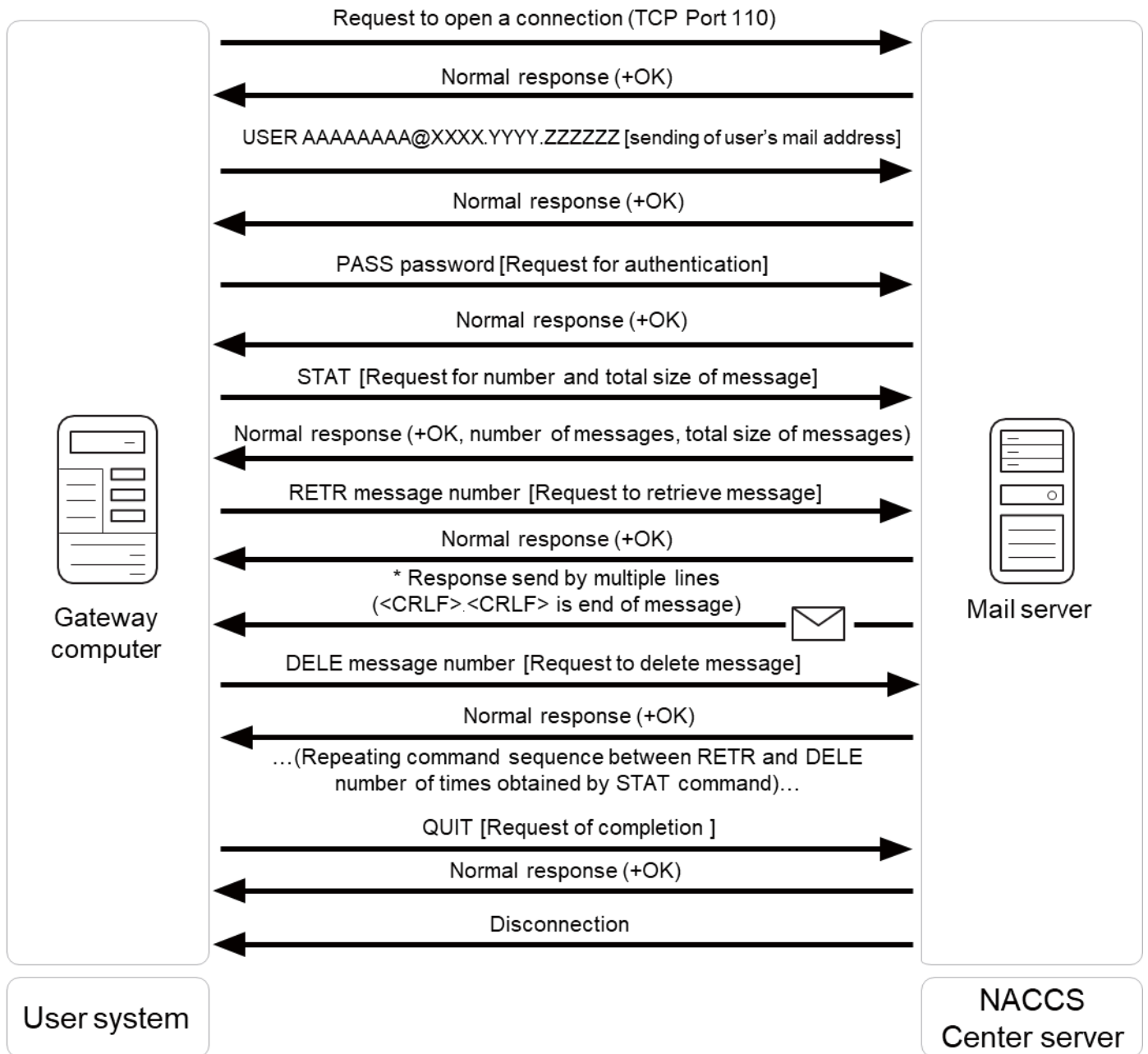
```
Request to open a connection (TCP Port 110)    →
                Normal response (+OK)            ←
USER AAAAAAAA@XXXX.YYYY.ZZZZZZ [sending of user's mail address]  →
                Normal response (+OK)            ←
        PASS password [Request for authentication]  →
                Normal response (+OK)            ←
    STAT [Request for number and total size of message]  →
Normal response (+OK, number of messages, total size of messages)  ←
    RETR message number [Request to retrieve message]  →
                Normal response (+OK)            ←
            * Response send by multiple lines
            (<CRLF>.<CRLF> is end of message)    ←
    DELE message number [Request to delete message]  →
                Normal response (+OK)            ←
    …(Repeating command sequence between RETR and DELE
    number of times obtained by STAT command)…
            QUIT [Request of completion ]        →
                Normal response (+OK)            ←
                    Disconnection                ←
```

Gateway computer — User system

Mail server — NACCS Center server

Figure 4.3.3 POP3 Command Sequence for Receiving a Process Result Message

Table 4.3.5　Description about Command when Receiving POP3

Item No.	Command	Description
1	Request to open a connection	User requests connection to NACCS's E-mail Server at Port 110. NACCS's E-mail Server sends +OK as normal response. IP address for NACCS's E-mail Server can be obtained from NACCS Center's DNS.
2	USER E-mail address	User executes command after setting E-mail address for user's system. NACCS's E-mail Server sends +OK as normal response. NACCS center notifies user's E-mail address in advance.
3	PASS POP Password	User executes command after setting POP password. User authentication is executed based on E-mail server specified on user command plus POP password set on this command. If successful, +OK normal response is sent. NACCS Center notifies user of POP password in advance.
4	STAT	When obtaining number and total size of message allowed in current connection session, user executes this command. NACCS's E-mail Server sends normal response as follows: +OK△number of messages△total message size (in bytes)
5	LIST	When obtaining the message number and message size allowed in current session, user executes this command. NACCS's E-mail Server sends normal response as follows: + OK message number△message size message number△message size ⋮ message number△message size . * "." is a communications protocol trailer, indicating the end of a message. * The unit for message sizes is bytes.
6	LIST message number	When obtaining the message size represented by the message number in the current session, the user executes this command. NACCS's E-mail Server sends normal response as follows: +OK△message number△message size (in bytes)
7	RETR message number	When reading out E-mail from the mailbox after specifying the message number, the user executes this command. NACCS's E-mail Server sends normal response as follows:

Item No.	Command	Description
		+OK Procedure message (more than 1 line) . * "." is a communications protocol trailer, indicating the end of a message. As the end of the message is recognized from \<CRLF\>.\<CRLF\> in POP3, if a message contains a line beginning with ".", a user system adds a dummy "." at the beginning of the line when responding. If a message received is not a \<CRLF\> string followed by ".", a user system removes "." placed at the beginning of the message.
8	DELE message number	When deleting a message from the mailbox after specifying the message number on the RETR command, the user executes this command. NACCS's E-mail Server sends a normal response as follows: +OK * When deleting a specified message from an E-mail domain, deletion will be successfully completed after being disconnected in response to the QUIT command. If an abnormal response is generated over POP3, or an unintended disconnection is caused due to some kind of failure before the QUIT is properly accepted, when a connection is established anew, any message for which the DELE command was issued for normal termination will be received again.
9	QUIT	When closing the POP3 connection session, the user uses this command. NACCS's E-mail Server sends following a normal response before disconnecting. +OK

(Note 1) POP3 Response Code

After a Response Code (+OK,-ERR), a one-byte space may be inserted, and request command-specific response information may follow. In this case, however, only the commands given in Table 4.3.5 should be referred to.

(Note 2) △ denotes a space.

When issuing a subsequent request to retrieve a Process Result Message from the Inbox after retrieving and deleting a message and issuing the QUIT command for notice of completion of a session, the user is required to wait for a period of time (3 minutes) or more designated by NACCS Center. The reason is that if users frequently issue requests to retrieve Process Result Messages from their Inbox, the E-mail server may be overloaded, as a result, the system response becomes slow and it takes a longer time to verify the contents of Process Result Messages.

In addition, users must issue a DELE command after retrieving messages by the RETR command to delete the retrieved messages from their mailbox.

3) Settlement in abnormal cases

Table 4.3.6 shows how to handle errors occurring during receipt of messages over POP3.

Table 4.3.6   POP3 Sequence Errors and Error Handling Procedures

Item No.	Command	Estimated errors and settlement methods
1	Request to open a connection	User sends connection request to NACCS's E-mail Server but request is not accepted. Causes and resolution methods: • The destination IP address is faulty. → Make sure connection is established to IP address inquired and obtained from NACCS's DNS. • The destination port number is faulty. → Determine if a request is sent to open a connection to port number 110 or not. • NACCS Center server is under maintenance. → NACCS Center's server maintenance information will be announced on NACCS Information, so please check there. If under maintenance, re-send the request to open a connection after the maintenance work is finished. • NACCS Center server or network is damaged. → Re-send another request to open a connection after a while. If it does not recover after a long period of time, send an investigation request to the Help desk of NACCS Center. The information on damages is also updated on NACCS Information. The information on the server's maintenance or damages used for connection test will not be notified on NACCS Information, if the server cannot be connected even in the time when the connection test is done, confirm the situation with NACCS Center.

2	USER	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		    → Confirm that character string of user command is correct.
		2) For command sequences error
		    → Execute user command before executing PASS command.
		
		Timeout due to no response from NACCS's E-mail Server.
		Causes and resolution methods:
		There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

Item No.	Command	Estimated errors and settlement methods

3	PASS	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		  → Confirm that character string of PASS command is correct.
		2) For command sequences error
		  → Execute the command after executing user command.
		3) For authentication error
		  → Check user E-mail address specified on user command and POP password specified on PASS command, and start over with requesting connection again.

		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

4	STAT	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		  → Confirm that character string of the STAT command is correct.
		2) For command sequence error
		  → Execute a command after the PASS command is completed with normal response.

		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

5	LIST	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		  → Confirm that character string of LIST command is correct.
		2) For command sequences error
		  → Execute command after PASS command is completed with normal response.

		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

6	RETR	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		  → Confirm that character string of RETR command is correct.
		2) For command sequence error
		  → Execute a command after the PASS command is completed with normal response.
		3) No message corresponding to message number specified exists, or request has already been issued for message number deletion on DELE command within the same connection session.

Item No.	Command	Estimated errors and settlement methods
		→ Make sure to specify the correct message number and execute the command.
		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
7	DELE	Error response is returned (-ERR). Causes and resolution methods: 1) For syntax error → Confirm that character string of DELE command is correct. 2) For command sequences error → Execute command after PASS command is completed with normal response. 3) No message corresponding to message number specified exists, or request has already been issued for message number deletion on DELE command within the same connection session. → Make sure to specify the correct message number and execute a command.
		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
8	QUIT	Error response is returned (-ERR). Causes and resolution methods: For syntax error → Confirm that character string of QUIT command is correct.
		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
9	Others	Connection breaks during transmission of message. Causes and resolution methods: There is a chance that damage could occur, so re-send the request to open a connection.

(3) Message format

In E-mail Style Processing Mode, a communications protocol header and a trailer are added to an NACCS EDI message, an attachment file message or an XML format message.
The message formats are outlined as follows:

(A) NACCS EDI message

Figure 4.3.4 shows the outline of NACCS EDI message format (E-mail Style Processing Mode).
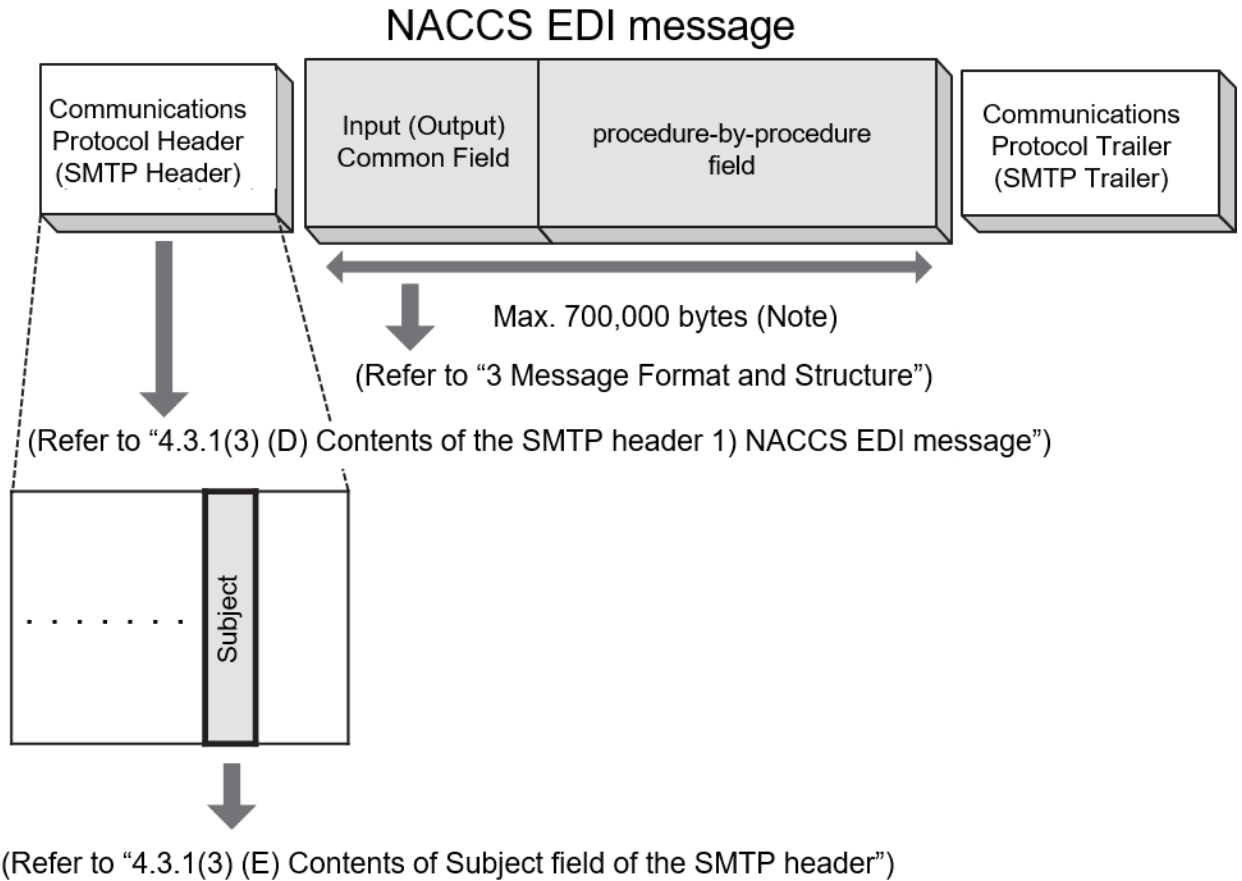

Figure 4.3.4 Outline of NACCS EDI message Format (E-mail Style Processing Mode)

Figure 4.3.5 shows transmission of a NACCS EDI message from a user system to NACCS Center server in E-mail Style Processing Mode.

1) NACCS EDI message body comes after the "<CRLF>" code placed after the SMTP header.
2) "." (Period) and "<CRLF>" are placed after the NACCS EDI message body, as communications protocol trailer.
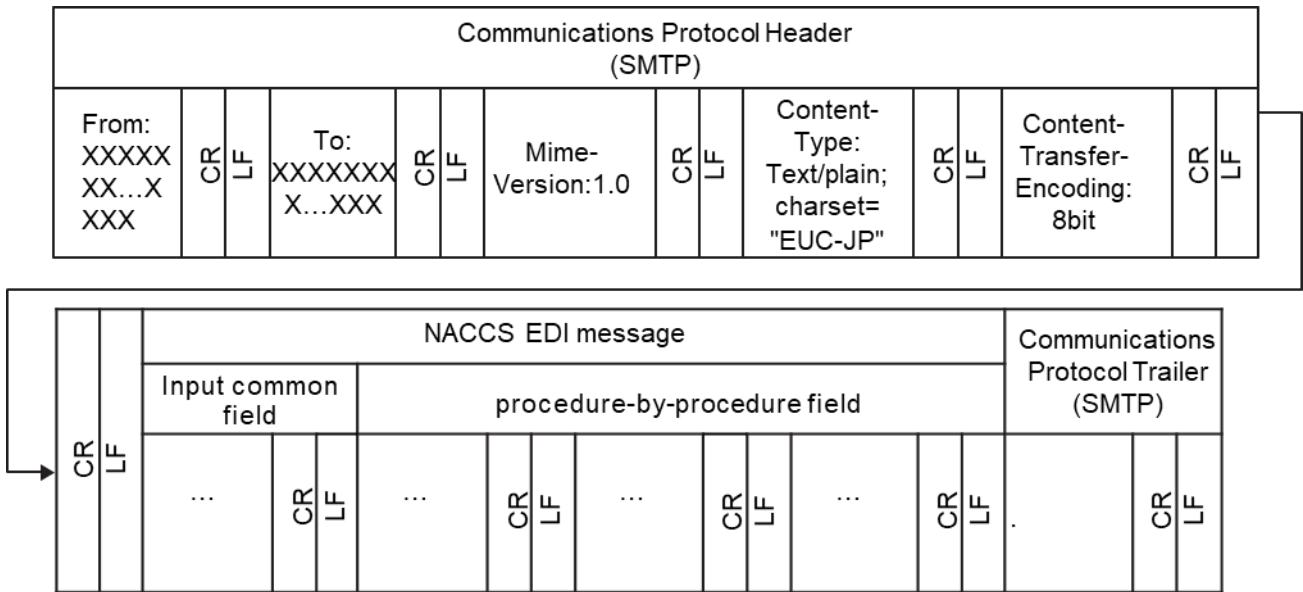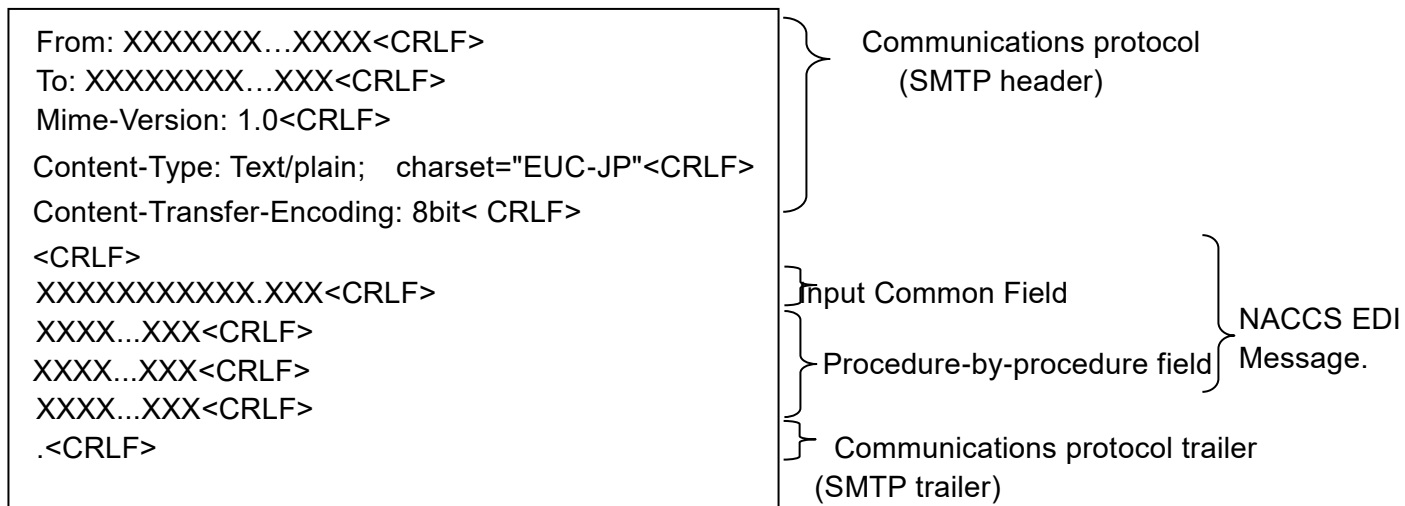
Figure 4.3.5 Message Segmentation

For reference: The following figure shows segments of a message displayed on text editor tools, etc.

(Note) Appearance of <CRLF> may be different depending on text editors, etc.

⚠ About communications protocol trailer
In SMTP, a line filled with ". <CRLF>" (a period line) is added at the end of a message. The end of a message is recognized by a sequence of "<CRLF>. <CRLF>", which is a combination of "<CRLF>" placed at the end of a message.

⚠ How to distinguish between communications protocol trailer and "." (dot)
"." is a communications protocol trailer which means the end of a response. In SMTP and POP3, the end of the message is recognized with <CRLF>.<CRLF>. If a message contains a line starting with ".", in a response message to user, NACCS Center server adds one "." (byte stuff) at the beginning of the line. The user should delete "." if the received response message starts with "." and the string to follow is not <CRLF>. Failure to delete byte stuff causes errors such as messages containing an additional unwanted

"." (dot) and message length with an extra byte at a user system.

(B) Attachment file message

Figure 4.3.6 shows outline of attachment file messages (E-mail Style Processing Mode). Refer to "4.6.2 Attachment file" for attachment files available for NACCS.
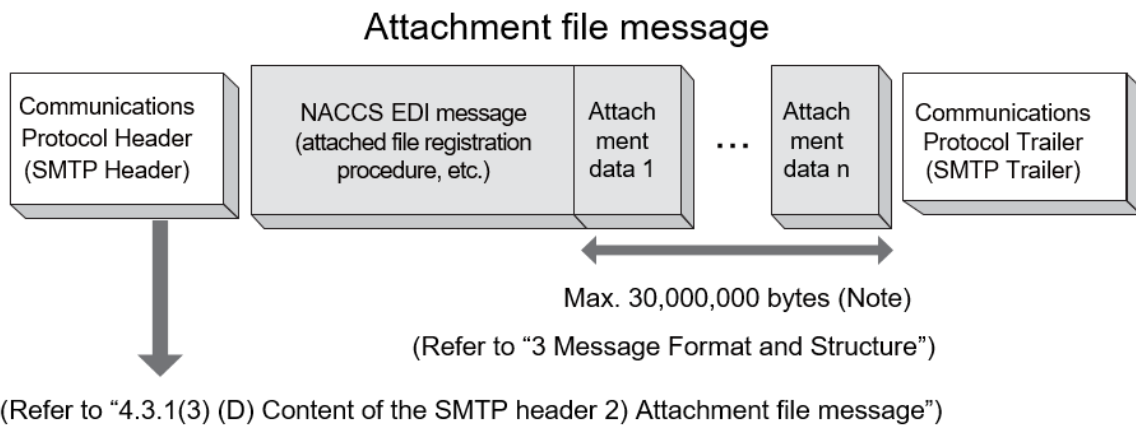
Attachment file message

(Refer to "4.3.1(3) (D) Content of the SMTP header 2) Attachment file message")

Figure 4.3.6 Outline of attachment file message (E-mail Style Processing Mode)

Figure 4.3.7 shows transmission of an attachment file message from a user system to NACCS Center server in E-mail Style Processing Mode.
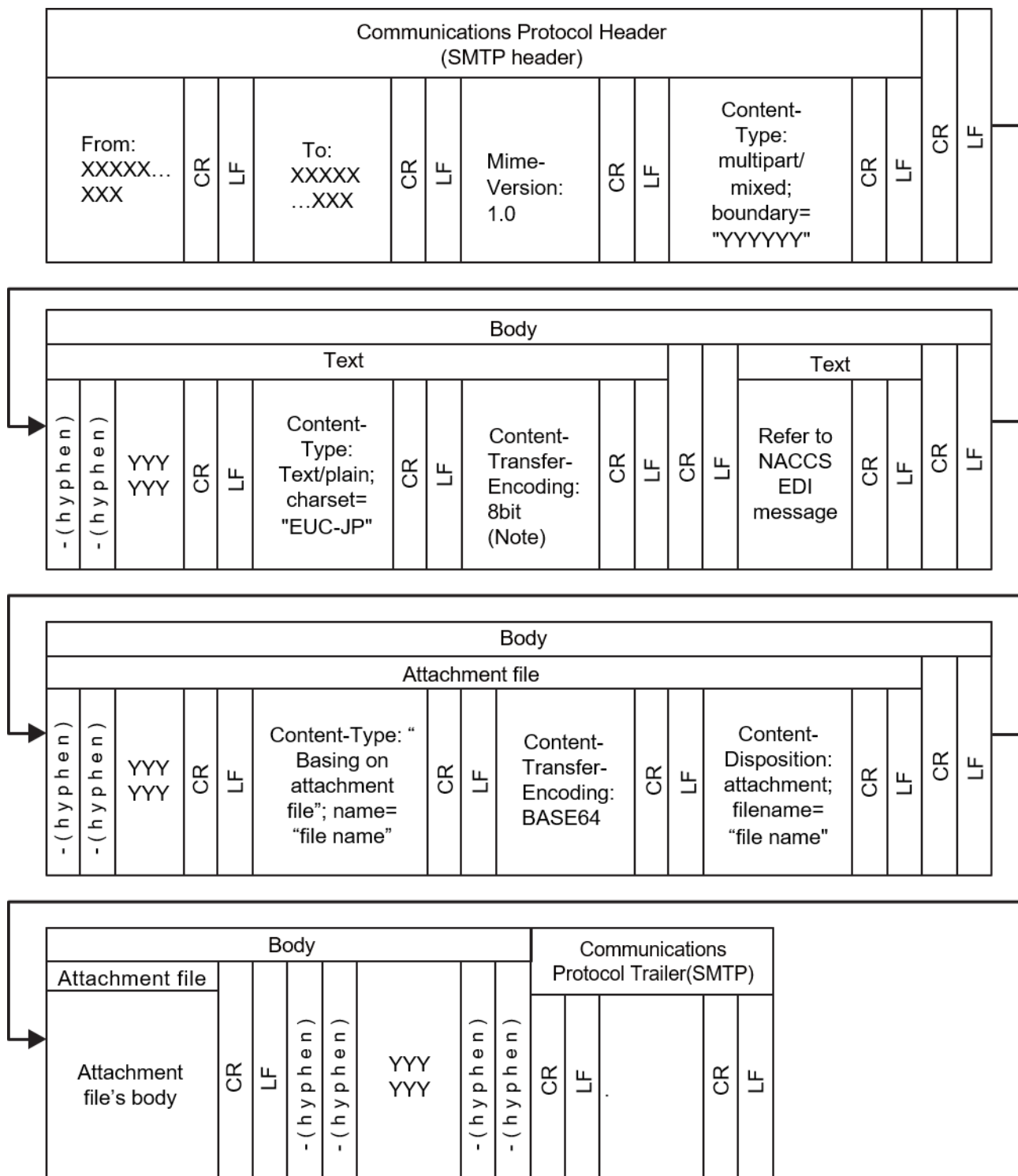
1) Filing method

In NACCS, BASE64 of MIME (Multipurpose Internet E-mail Extensions) is used when sending and receiving the message. Attachment file message is filled with the attached file format.

Details of regulations when sending and receiving the attachment file message are as follows.

- MIME version is 1.0.
- Content-type of SMTP header is multipart/mixed, Content-type of NACCS message is Text/plain, Content-type of attached file is specified according to each attached file.
- The Content-Transfer-Encoding of the attached file is appointed as BASE64.
- NACCS EDI message can't be abbreviated. In addition, the attached file needs to be placed behind the NACCS EDI message.
- In Content-Disposition, specify "attachment" and specify the file's name in "filename".

2) Image of message
- The attachment file message is structured with a communications protocol header, and a message and communications protocol trailer.
- NACCS EDI message, attached file's body encoded with BASE64 comes after the <CRLF> code placed after SMTP header.
- "." (Period) and "<CRLF>" are placed after the attachment file message, as communications protocol trailer.

Communications Protocol Header (SMTP header)

| From: XXXXX...XXX | CR | LF | To: XXXXX...XXX | CR | LF | Mime-Version: 1.0 | CR | LF | Content-Type: multipart/mixed; boundary="YYYYYY" | CR | LF | CR | LF |

Body

Text / **Text**

| -(hyphen) | -(hyphen) | YYYYYY | CR | LF | Content-Type: Text/plain; charset="EUC-JP" | CR | LF | Content-Transfer-Encoding: 8bit (Note) | CR | LF | CR | LF | Refer to NACCS EDI message | CR | LF | CR | LF |

Body

Attachment file

| -(hyphen) | -(hyphen) | YYYYYY | CR | LF | Content-Type: " Basing on attachment file"; name= "file name" | CR | LF | Content-Transfer-Encoding: BASE64 | CR | LF | Content-Disposition: attachment; filename= "file name" | CR | LF | CR | LF |

Body — **Attachment file** / **Communications Protocol Trailer(SMTP)**

| Attachment file's body | CR | LF | -(hyphen) | -(hyphen) | YYYYYY | -(hyphen) | -(hyphen) | CR | LF | . | CR | LF |

(Note) Setting point of this item is based on E-mail software. "8-bit" is just an example.

Figure 4.3.7 An Example of Attachment File Message Structure

For reference:

Text presentation of the above contents on text editor tools, etc. is described as follow.

From: XXXXX…XXX<CRLF>   Communications protocol
To: XXXXX…XXX<CRLF>   header
Mime-Version: 1.0<CRLF>   (SMTP header)
Content-Type: Multipart/mixed; boundary="YYYYYY"<CRLF>
<CRLF>
--YYYYYY<CRLF>
Content-Type: Text/plain; charset="EUC-JP"<CRLF>
Content-Transfer-Encoding: 8bit< CRLF>
<CRLF>
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX…XXX   <CRLF>   NACCS EDI
<CRLF>   Message
--YYYYYY<CRLF>
Content-Type: "Basing on attached file"; name="file name"<CRLF>
Content-Transfer-Encoding: BASE64<CRLF>
Content-Disposition: attachment; filename="file name"<CRLF>   Repeatable
<CRLF>
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ…ZZ   Attached file's body
<CRLF>
--YYYYYY--
<CRLF>   Communications protocol
. <CRLF>   trailer
                                                               (SMTP trailer)

(C) XML format message

Figure 4.3.8 shows the outline of XML format message (E-mail Style Processing Mode).
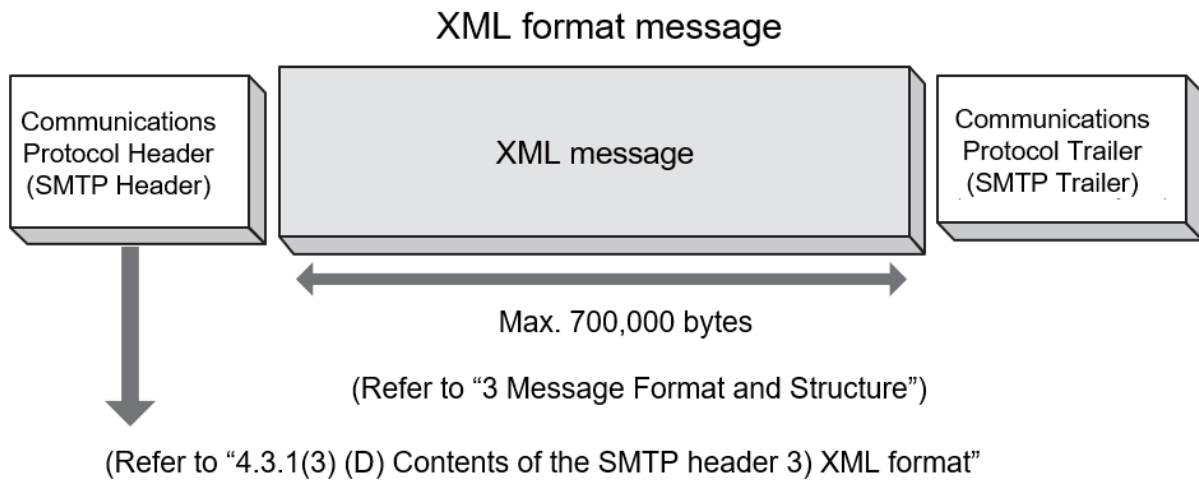
XML format message

Figure 4.3.8 Outline of XML Format message (E-mail Style Processing Mode)

Lay out of an XML format message sent to NACCS Center server from a user in E-mail Style Processing Mode is described as follow.

1) An XML format message body comes after the "<CRLF>" code placed after the SMTP header.
2) "<CRLF>" and "." (Period) and "<CRLF>" are placed after the XML format message, as communications protocol trailer.
3) Make a new line after each 1,000 bytes. If not, an error will occur.
4) <CRLF> exists in each line of XML message.
5) Character code of XML message is EUC-JP, EUC-JP must be recorded in encoding field of XML header.

For details of XML format message structure which user sends to NACCS center sever in E-mail Style Processing Mode, refer to XML Subjected Procedure of "Appendix 6 (Subjected Procedure List)".

< For reference >

 Text presentation of XML format message structure on text editor tools, etc. is described as follows.

```
From: XXXXX…XXX<CRLF>
 To:   XXXXX⋯XXX<CRLF>
Mime-Version:1.0<CRLF>
Content-Type: Text/plain; charset="EUC-JP"<CRLF>
Content-Transfer-Encoding: 8bit< CRLF>
<CRLF>
```
Communications protocol
 header
 (SMTP header)

```
<?xml version="1.0" encoding="EUC-JP" standalone="no" ?>
- <Root Element>
   - <Header>
     - <Document Type>
         <Document Type Code>XXX</Document Type Code>
         <Document Type Description>XX…XXX</Document Type Description>
      </Document Type>
    - <Document Identification>
         <Message Function> XX…XXX </Message Function>
         <Message Transfer Sequence No>XX</Message Transfer Sequence No>
      </Document Identification>
      <Sender ID> XX…XXX </Sender ID>
    </Header>
   - <Body>
            •
            •
            •
            •
     - <Additional Information>
         <Information Type> XX…XXX </Information Type>
      </Additional Information>
    </Body>
   </Root Element>
```

* XML message
Refer to XML Subjected Procedure of "Appendix 6 (Subjected Procedure List)".

```
<CRLF>
<CRLF>
```
Communications protocol
 trailer
 (SMTP trailer)

(D) Contents of the SMTP header

1) NACCS EDI message

Contents of the SMTP header included in Process Request Message and Process Result Message are as follows.

(a) Process Request Message
Table 4.3.7 shows contents of the SMTP header in a Process Request Message sent from a user.

Table 4.3.7   SMTP Header (Process Request Message)

Item No.	Item	Contents specified by the user
1	From	The sender of the E-mail. In NACCS, a source (user) E-mail address assigned by NACCS center is specified. If no address is specified, an error will occur. (Refer to "4.3.4 E-mail address.")
2	To	The receiver of the E-mail. In NACCS, NACCS Center server's E-mail address allocated for E-mail Style Processing Mode is specified. (Refer to "4.3.4 E-mail address.")
3	MIME-version	In NACCS, "1.0" is specified.
4	Content-Type	Text/plain; charset="EUC-JP" is specified
5	Content-Transfer-Encoding	In NACCS characters are treated as EUC characters. "8bit" is specified.

(b) Process Result Message
Table 4.3.8 shows contents of the SMTP header in a Process Result Message (Process Result Output Message and Output Information Message) sent from NACCS to a user.

Table 4.3.8   SMTP Header (Process Result Message)

Item No.	Item	Contents specified by the E-mail server in NACCS's Server
1	From	The sender of the E-mail. In NACCS, NACCS Center server's E-mail address allocated for E-mail Style Processing Mode is specified. (Refer to "4.3.4 E-mail address.")
2	To	The receiver of the E-mail. In NACCS user's e-mail address for Inbox which is used to store Process Result Messages is specified. (Refer to "4.3.4 E-mail address.")
3	Date	The date of the message is sent to the receiver is specified.
4	Subject	(See "4.3.1.3 (5) Contents of Subject field of the SMTP header")
5	MIME-version	In NACCS, "1.0" is specified.
6	Content-Type	Text/plain; charset="EUC-JP" is specified
7	Content-Transfer-Encoding	In NACCS characters are treated as EUC characters. "8bit" is specified.

2) Attachment file message

Contents of the SMTP header included in Process Request Message and Process Result Message are as follows.

 (a) Process Request Message
    Table 4.3.9 shows contents of the SMTP header in a Process Request Message sent from a user.

Table 4.3.9   SMTP Header (Process Request Message)

Item No.	Item	Contents specified by the user
1	From	The sender of the E-mail. In NACCS, a source (user) E-mail address assigned by NACCS center is specified. If no address is specified, an error will occur. (Refer to "4.3.4 E-mail address.")
2	To	The receiver of the E-mail. In NACCS, NACCS Center server's E-mail address allocated for E-mail Style Processing Mode is specified. (Refer to "4.3.4 E-mail address.")
3	MIME-version	In NACCS, "1.0" is specified. If it is not specified, that E-mail will be omitted.
4	Content-Type	For SMTP header, multipart/mixed; boundary="optional value" is specified. In addition, NACCS message is specified by Text/plain; charset ="EUC-JP" and attachment file by basing on attached file. If it is not specified, that E-mail will be omitted.
5	Content-Transfer-Encoding	It is not specified in SMTP header. 8bit is specified in NACCS message and BASE64 is specified in attached file.
6	Content-Disposition	It is not specified in SMTP header and NACCS message. Attachment is specified in attached file and "file name" in filename.

(b) Process Result Message

Table 4.3.10 shows contents of the SMTP header in a Process Result Message sent from NACCS to a user.

Table 4.3.10 SMTP Header (Process Result Message)

Item No.	Item	Contents specified by the user
1	From	The sender of the E-mail. In NACCS, NACCS Center server's E-mail address allocated for E-mail Style Processing Mode is specified. (Refer to "4.3.4 E-mail address.")
2	To	The receiver of the E-mail. In NACCS user's E-mail address for Inbox which is used to store Process Result Messages is specified. (Refer to "4.3.4 E-mail address.")
3	Date	The date of the message is sent to the receiver is specified.
4	Subject	(See "4.3.1.3 (5) Contents of Subject field of the SMTP header")
5	MIME-version	In NACCS, "1.0" is specified. If it is not specified, that E-mail will be omitted.
6	Content-Type	For SMTP header, multipart/mixed; boundary="optional value" is specified. In addition, NACCS message is specified by Text/plain; charset="EUC-JP", and attachment file by basing on attached file.
7	Content-Transfer-Encoding	It is not specified in SMTP header. "8bit" is specified in NACCS message and BASE64 is specified in attached file.
8	Content-Disposition	It is not specified in SMTP header and NACCS message. Attachment is specified in attached file and "file name" in filename.

3) XML format message

Contents of the SMTP header included in Process Request Message and Process Result Message are as follows.

(a) Send Process Request Message
Table 4.3.11 shows contents of the SMTP header in a Process Request Message sent from a user.

Table 4.3.11 SMTP Header (Process Request Message)

Item No.	Item	Contents specified by the user
1	From	The sender of the E-mail. In NACCS, a source (user) E-mail address assigned by NACCS center is specified. If no address is specified, error will occur. (Refer to "4.3.4 E-mail address.")
2	To	The receiver of the E-mail. In NACCS, NACCS Center server's E-mail address allocated for E-mail Style Processing Mode is specified. (Refer to "4.3.4 E-mail address.")
3	MIME-version	In NACCS, "1.0" is specified. If it is not specified, that E-mail will be omitted.
4	Content-Type	In NACCS, due to using message in EUC, Text/plain; charset="EUC-JP" is specified.
5	Content-Transfer-Encoding	In NACCS characters are treated as EUC characters. "8bit" is specified.

(b) Process Result Message
For details about contents of the SMTP header in a Process Result Message sent from NACSS to a user, referred to "4.3.1(3) (D) Content of the SMTP header 1) NACCS EDI message – Table 4.3.8" above.

(E) Contents of Subject field of the SMTP header

Contents of Subject field of the SMTP header included in a Process Result Message sent from the center server to a user are as follows.

1) Purpose
The purpose of this is by NACCS Center server specifying the contents described in "(B)" following in the Subject of the SMTP header, details of the Process Result Messages stored in the E-mail can be read without the user opening the E-mail.

2) Contents of Subject field
A common format is used for both Process Result Output Message and Output Information Message.
Table 4.3.12 shows contents of Subject field.

Table 4.3.12   Contents of Subject Field

Field name	length	Outline
Procedure-by-procedure data	64	For example, Process Result Code, declaration number, B/L Number, and control number are specified. A space is used as a data separator. (Refer to Table A6-8 " Output Information Code List ")

3) Others
Since contents of Subject field are included in a NACCS EDI message body, Subject field is not specifically useful for users who do not need to handle its contents.
(Subject field can be omitted)

4.3.2 E-mail Style Processing Mode for EDIFACT messages

(1) Outline of Processing Mode (EDIFACT messages)

For E-mail Style Processing Mode for EDIFACT messages, message structure is different from E-mail Style Processing Mode for NACCS EDI messages. However, other than that it basically has the same method.
E-mail
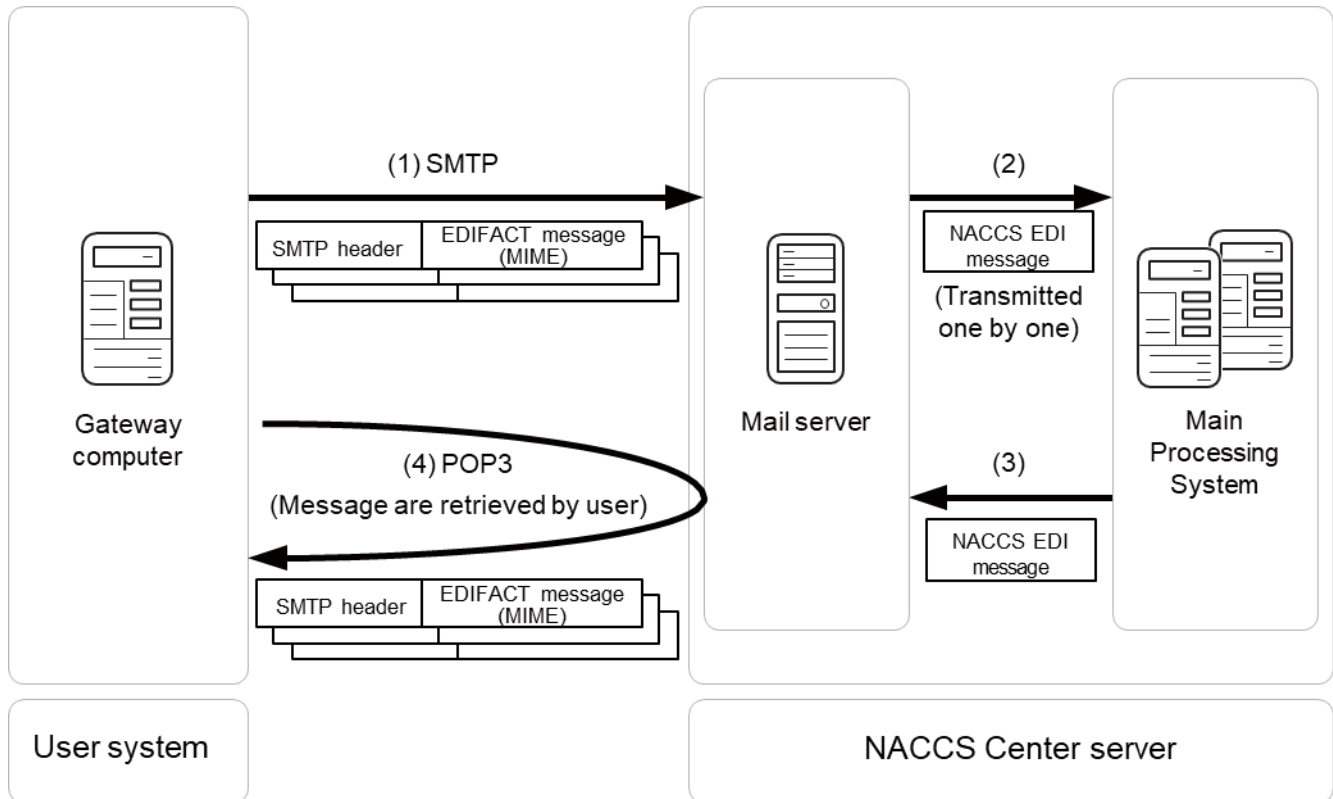
Figure 4.3.9 Outline of Connection Mode of E-mail Style Processing Mode for EDIFACT messages

(A) The user creates and sends an EDIFACT message that contains data required for the relevant procedure to the E-mail server over the SMTP protocol (EDIFACT message is attached in MINE format). More than one message can be sent at a time.

(B) The E-mail server converts the EDIFACT message into a NACCS EDI message, and forwards this to the Main Processing System.

(C) The Main Processing System then processes the message based on the forwarded message, and forwards a Process Result Message to the user's mailbox on the E-mail server. The E-mail server converts the NACCS EDI message into an EDIFACT message, and stores this in user mailbox in the E-mail server in MIME format.

(D) Then the user retrieves the Process Result Message from the mailbox over the POP3 protocol.

(2) Details of the Communications Protocol

In E-mail Style Processing Mode for EDIFACT messages, TCP/IP is used for the network and transport layers, and regarding the upper layer, SMTP(MIME) for sending Process Request Messages and POP3(MIME) for receiving Process Result Messages are used as communications protocols.

(A) SMTP specifications when sending a Process Request Message on SMTP

1) Applicable SMTP commands

Table 4.3.13 shows list of SMTP commands available in E-mail Style Processing Mode for EDIFACT messages that can be used to send to NACCS Center server, and their responses.

Table 4.3.13 List of SMTP Commands in transmission

Command	Outline	Parameter	Response on NACCS's E-mail Server (Normal response)
Request to open a connection	Request to open a TCP connection	Connection domain name, port number	220
HELO	To declare use of the communications channel and to identify the host	Sender host name Domain name	250
MAIL	To start the E-mail transaction	FROM: Sender name	250
RCPT	To specify the receiver of the E-mail	TO: Receiver user name	250
DATA	Begin sending E-mail body	Message data	354
RSET	To stop forwarding the E-mail	-	250
QUIT	To close the connection	-	221

2) SMTP command sequence for sending a Process Request Message

Figure 4.3.10 shows a sequence of SMTP commands issued for transmission of Process Request Messages from a user system to NACCS Center server (example of 2 messages in a single connection session to the E-mail server). Table 4.3.14 shows description of each command.
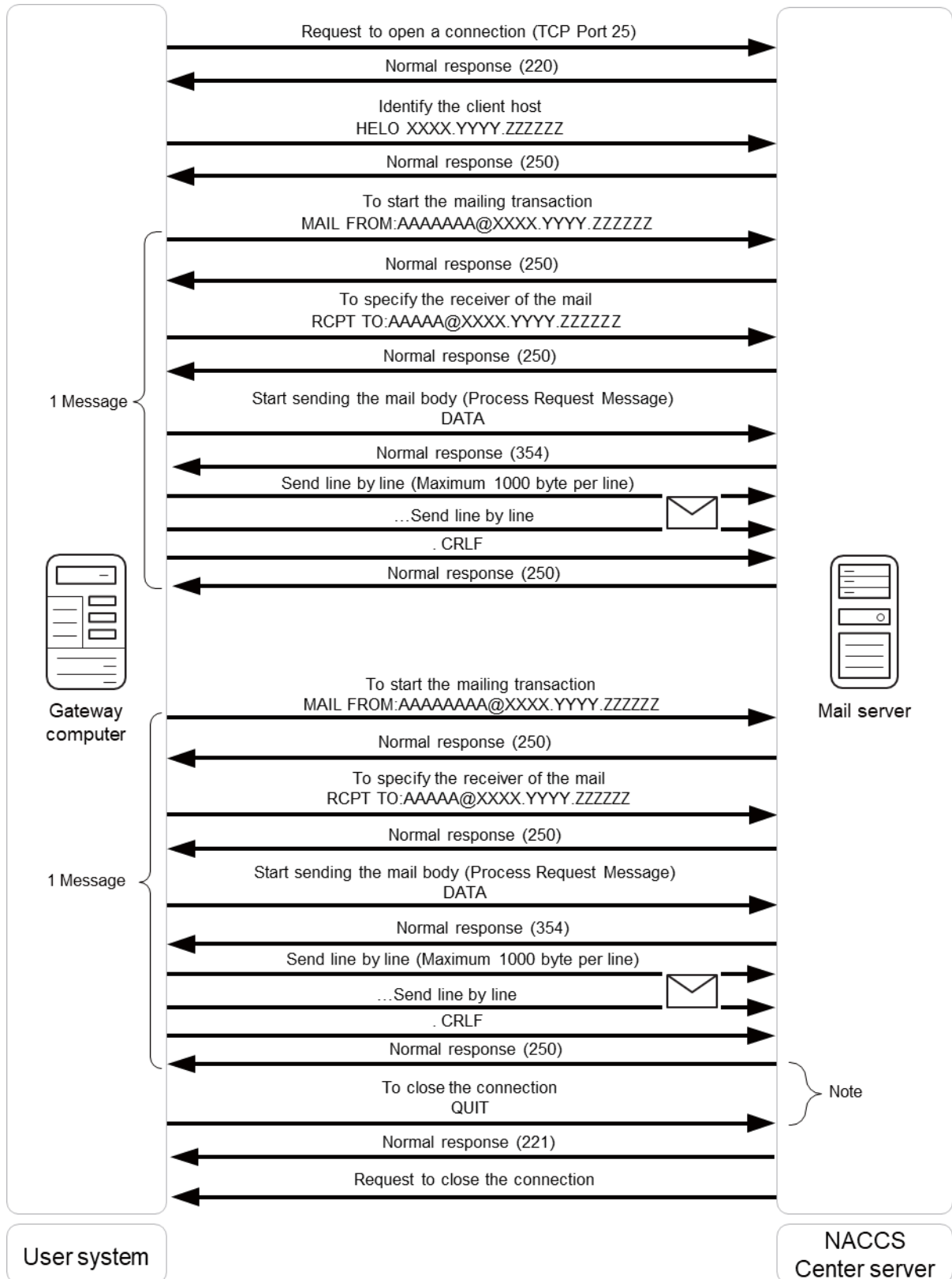
Figure 4.3.10 Sequence of SMTP commands issued for transmission of Process Request Messages

(Example of 2 messages in a Single Connection Session to the NACCS's E-mail Server)

Table 4.3.14 Description about Command when Sending SMTP

Item No.	Command	Description
1	Request to open a connection	User requests connection to NACCS's E-mail Server at Port 25. NACCS's E-mail Server sends Response Code 220 as a normal response. IP address for NACCS's E-mail Server can be obtained from NACCS Center's DNS.
2	HELO Domain name	User executes command after setting domain name for user system. NACCS's E-mail Server opens SMTP connection if server is available. NACCS's E-mail Server sends Response Code 250 as a normal response. NACCS center notifies user system domain name in advance.
3	MAIL FROM: E-mail address	User executes command after setting E-mail address for user's system. NACCS's E-mail Server sends Response Code 250 as a normal response. NACCS center notifies user's E-mail address in advance.
4	RCPT TO: E-mail address	User executes command after setting E-mail address for NACCS Center server. NACCS's E-mail Server sends Response Code 250 as a normal response.
5	DATA	User executes command to start transmission of Process Request Message. NACCS's E-mail Server sends Response Code 354 as a normal response. After that, user can send the message (including communications protocol header).
6	Send E-mail body	User sends Process Request Message in accordance with NACCS Procedure Specification. At the end edge of a Process Request Message, only the line with dot (.) can be sent. After receiving the end edge, NACCS's E-mail Server sends Response Code 250 as a normal response. * It is necessary to make a new line (CRLF) after each 1,000 bytes, but because in the NACCS EDI specification, a new line (CRLF) will be made within 1,000 bytes, it is not necessary for user to be aware of it. * The end of the message is recognized from "<CRLF>.<CRLF>" in SMTP. If a message contains a line beginning with ".", a user system should add the dummy "." just before that. The NACCS E-mail server removes the dummy "." and forwards the message to the Main Processing System.
7	RSET	If the user executes this command, it will return to the status it was at after HELO.

Item No.	Command	Description
		NACCS's E-mail Server sends Response Code 250 as a normal response. (Normally, it is not necessary to execute this command).
8	QUIT	User closes the SMTP connection. NACCS's E-mail Server sends Response Code 221 as a normal response.

(Note) In Figure 4.3.10, if the gateway computer on a user system does not issue the QUIT command within two minutes after completion of transmission of all messages, the NACCS's E-mail Server will prompt a connection timeout and close the current connection by force. Therefore, for gateway connection, when using E-mail Style Processing Mode, the QUIT command must be issued upon completion of transmission of all Process Request Message.

(Note 1) Response code of SMTP

There are optional characters behind 3 digits of each response code, but only refer to these 3 first digits.

Example: Response of HELO

250 XXXX.YYYY.ZZZZZZ
↑

Only refer to the response code and carry out the settlement methods described in the Table 4.3.15.

* Reason: Because rear characters can be changed depending on Specification changes in NACCS Center server.

(Note 2) Timeout observation

The user system must monitor SMTP connection timeouts to detect any failure in the NACCS's E-mail Server or network.

In this specification, more than one message can be sent in one connection, and as the timeout period of SMTP connection cannot be prescribed, the monitoring time must be decided based on operation methods applied by user.

3) Settlement in abnormal cases

Settlement methods in case an error occurs when sending SMTP are described in the Table 4.3.15.

Table 4.3.15 Settlement methods for sequential errors of SMTP

Item No.	Command	Estimated errors and settlement methods
1	Request to open a connection	User sends connection request to NACCS's E-mail Server but the request is not accepted. Causes and resolution methods: • The destination IP address is faulty. → Make sure connection is established to IP address inquired and obtained from NACCS's DNS. • The destination port number is faulty. → Determine if a request is sent to open a connection to port number 25 or not. • NACCS Center server is under maintenance. → Information about maintenance of NACCS Center server is announced to the public on NACCS Information, so that should be checked. If under maintenance, re-send the request to open a connection after the maintenance work is finished. • NACCS Center server or network is damaged. → Re-send another request to open a connection after a while. If it does not recover after a long period of time, send an investigation request to the Help desk of NACCS Center. The information on damages is also updated on NACCS Information. The information on the server's maintenance or damages used for connection test will not be notified on NACCS Information, if the server cannot be connected even in the time when the connection test is done, confirm the situation with NACCS Center.
2	HELO	Errors in response (except for normal responses (250)) are returned. Causes and resolution methods: 1) For syntax error (500) → Confirm that character string of HELO command is correct. 2) For command sequences error (503) → Execute the command with the right sequences described in the Figure 4.3.10. Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
3	MAIL FROM	Errors in response (except for normal responses (250)) are returned. Causes and resolution methods: 1) For syntax error (500) or parameter error (501) or domain name error (553). → Confirm that character string of MAIL command is correct.

Item No.	Command	Estimated errors and settlement methods
		2) For command sequences error (503) → Execute the command with the right sequences described in the Figure 4.3.10.
		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

4	RCPT TO	Errors in response (except for normal responses (250)) are returned.
		Causes and resolution methods:
		1) For syntax error (500) or parameter error (501) or domain name error (553).
		  → Confirm that character string of RCPT command is correct.
		2) For command sequences error (503)
		  → Execute the command with the right sequences described in the Figure 4.3.10.

		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

5	DATA	Errors in response (except for normal responses (354)) are returned.
		Causes and resolution methods:
		1) For syntax error (500)
		  → Confirm that character string of sending DATA command is correct.
		2) For command sequences error (503)
		  → Execute the command with the right sequences described in the Figure 4.3.10.

		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
6	Send Process Request Message	Errors occur during communication. Causes and resolution methods: As NACCS's E-mail Server can be damaged, re-send the request after a while. If it does not recover after a long period of time, send an investigation request to the Help desk of NACCS Center.
7	RSET	Errors in response (except for normal responses (250)) are returned. Causes and resolution methods: 1) For syntax error (500) → Confirm that the character string of RSET command is correct.

Item No.	Command	Estimated errors and settlement methods
		Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
8	QUIT	Errors in response (except for normal responses (221)) are returned. Causes and resolution methods: 1)　For syntax error (500) 　→ Confirm that character string of QUIT command is correct.
9	Others	Detect abnormalities during communication. Causes and resolution methods: There is a chance that damage could occur, so re-send the request to open a connection.

(B) POP3 specifications when receiving a Process Result Message

1) Available POP3 commands

In principle, POP3 (Post Office Protocol version 3) in this mode shall comply with "Request For Comments" (RFC 1939). However, APOP authentication, one of the authentication exchange methods, is not supported.

Table 4.3.16 shows list of POP3 commands available in E-mail Style Processing Mode for EDIFACT messages, and their responses.

Table 4.3.16 List of Available POP3 Commands

Command	Outline	Parameter	Response on NACCS's E-mail Server (Normal response)
Request to open a connection	Request to open a TCP connection	Connection domain name, port number	+OK
USER	To send E-mail address	E-mail address	+OK
PASS	To send mailbox password	Mailbox Password	+OK
STAT	To inquire about the number of E-mail messages and the total size of E-mail messages	-	+OK Number of messages Total size of messages
LIST	To inquire about all message information	-	+OK message number message size • • • message number message size .
	To inquire about specific message information	Message number	+ OK message number message size
RETR	To request to retrieve message	Message number	+OK Procedure message (more than 1 line) .
DELE	To request message deletion	Message number	+OK
QUIT	End connection (completion notice)	-	+OK

2) POP3 command sequence in receipt of a Process Result Message

Figure 4.3.11 shows a sequence to retrieve Process Result Messages over POP3 in E-mail Style Processing Mode. This sequence is an example of the use of the STAT command when obtaining the number of Process Result Messages at the time of connection to the E-mail server. Table 4.3.17 shows description of each command.
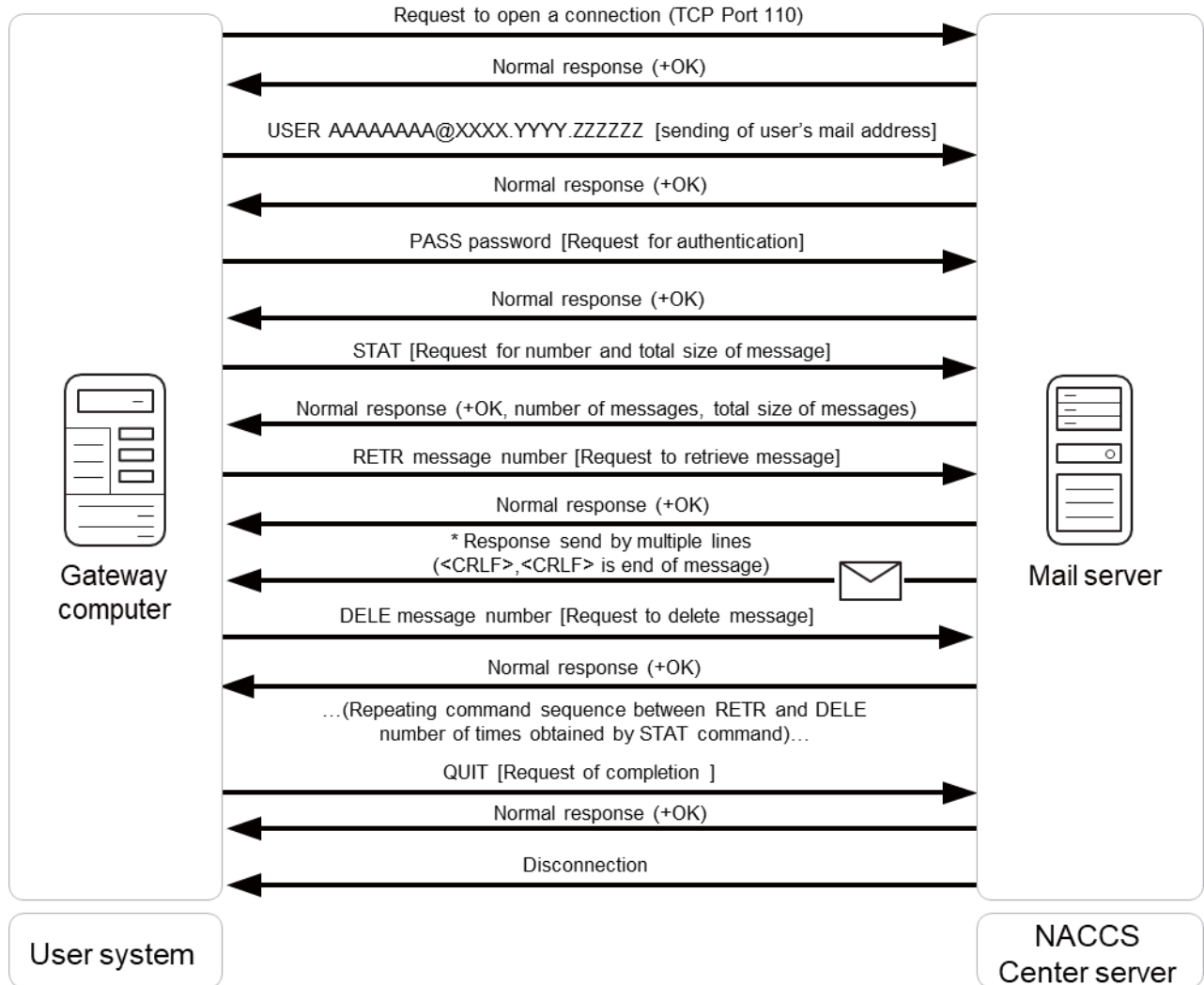
Figure 4.3.11 POP3 Command Sequence for Receiving a Process Result Message

Table 4.3.17 Description about Command when Receiving POP3

Item No.	Command	Description
1	Request to open a connection	User requests connection to NACCS's E-mail Server at Port 110. NACCS's E-mail Server sends +OK as normal response. IP address for NACCS's E-mail Server can be obtained from NACCS Center's DNS.
2	USER E-mail address	User executes command after setting E-mail address for user's system. NACCS's E-mail Server sends +OK as normal response. NACCS center notifies user's e-mail address in advance.
3	PASS POP Password	User executes command after setting POP password. User authentication is executed based on E-mail server specified on user command plus POP password set on this command. If successful, +OK normal response is sent. NACCS Center notifies user of POP password in advance.
4	STAT	When obtaining number and total size of message allowed in current connection session, user executes this command. NACCS's E-mail Server sends normal response as follows: +OK△number of messages△total message size (in bytes)
5	LIST	When obtaining message number and message size allowed in current session, user executes this command. NACCS's E-mail Server sends normal response as follows: +OK message number△message size message number△message size ⋮ message number △message size . * "." is a communications protocol trailer, indicating the end of a message. * The unit for message sizes is bytes.
6	LIST message number	When obtaining message size represented by message number in current session, user executes this command. NACCS's E-mail Server sends normal response as follows: +OK△message number△message size (in bytes)

Item No.	Command	Description
7	RETR message number	When reading out E-mail from the mailbox after specifying the message number, the user executes this command. NACCS's E-mail Server sends normal response as follows: +OK Procedure message (more than 1 line) . * "." is a communications protocol trailer, indicating the end of a message. As the end of the message is recognized from <CRLF>.<CRLF> in POP3, if a message contains a line beginning with ".", the User system adds a dummy "." at the beginning of the line when responding. If a message received is not a <CRLF> string followed by ".", a user system removes "." placed at the beginning of the message.
8	DELE message number	When deleting a message from the mailbox after specifying the message number on the RETR command, the user executes this command. NACCS's E-mail Server sends normal response as follows: +OK * When deleting a specified message from an E-mail domain, deletion will be successfully completed after being disconnected in response to the QUIT command. If an abnormal response is generated over POP3, or an unintended disconnection is caused due to some kind of failure before the QUIT is properly accepted, when a connection is established anew, any message for which the DELE command was issued for normal termination will be received again.
9	QUIT	When closing POP3 connection session, user uses this command. NACCS's E-mail Server sends following normal response before disconnecting. +OK

(Note 1) POP3 Response Code
　　　After a Response Code (+OK,-ERR), a one-byte space may be inserted, and request command-specific response information may follow. In this case, however, only the commands given in Table 4.3.17 should be referred to.
(Note 2)△ denotes a space.

When issuing a subsequent request to retrieve a Process Result Message from the Inbox after retrieving and deleting a message and issuing the QUIT command for notice of completion of a session, the user is required to wait for a period of time (3 minutes) or more designated by NACCS Center. The reason is that if users frequently issue requests to retrieve Process Result Messages from their Inbox, the E-mail server may be overloaded. As a result, the system response becomes slow and it takes a longer time to verify the contents of Process Result Messages.

In addition, users must issue a DELE command after retrieving messages by the RETR command to delete the retrieved messages from their mailbox.

3) Settlement in abnormal cases

Table 4.3.18 shows how to handle errors occurring during receiving messages via POP3.

Table 4.3.18 POP3 Sequence Errors and Error Handling Procedures

Item No.	Command	Estimated errors and settlement methods
1	Request to open a connection	User sends connection request to NACCS's E-mail Server but request is not accepted. Causes and resolution methods: • The destination IP address is faulty. → Make sure connection is established to IP address inquired and obtained from NACCS's DNS. • The destination port number is faulty. → Determine if a request is sent to open a connection to port number 110 or not. • NACCS Center server is under maintenance. → Information about maintenance of NACCS Center server is announced to the public on NACCS Information, so that should be checked. If under maintenance, re-send the request to open a connection after the maintenance work is finished. • NACCS Center server or network is damaged. → Re-send another request to open a connection after a while. If it does not recover after a long period of time, send an investigation request to the Help desk of NACCS Center. The information on damages is also updated on NACCS Information. The information on the server's maintenance or damages used for connection test will not be notified on NACCS Information, if the server cannot be connected even in the time when the connection test is done, confirm the situation with NACCS Center.

2	USER	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		    → Confirm that character string of user command is correct.
		2) For command sequences error
		    → Execute user command before executing PASS command.
		
		Timeout due to no response from NACCS's E-mail Server.
		Causes and resolution methods:
		There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

Item No.	Command	Estimated errors and settlement methods

3	PASS	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		  → Confirm that character string of PASS command is correct.
		2) For command sequences error
		  → Execute the command after executing user command.
		3) For authentication error
		  → Check user E-mail address specified on user command and POP password specified on PASS command, and start over with requesting connection again.
		
		Timeout due to no response from NACCS's E-mail Server.
		Causes and resolution methods:
		There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

4	STAT	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		  → Confirm that character string of STAT command is correct.
		2) For command sequences error
		  → Execute command after PASS command is completed with normal response.
		
		Timeout due to no response from NACCS's E-mail Server.
		Causes and resolution methods:
		There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

5	LIST	Error response is returned (-ERR).
		Causes and resolution methods:
		1) For syntax error
		  → Confirm that character string of LIST command is correct.
		2) For command sequences error
		  → Execute command after PASS command is completed with normal response.
		
		Timeout due to no response from NACCS's E-mail Server.
		Causes and resolution methods:
		There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.

Item No.	Command	Estimated errors and settlement methods
6	RETR	Error response is returned (-ERR). Causes and resolution methods: 1) For syntax error → Confirm that character string of RETR command is correct. 2) For command sequences error → Execute command after PASS command is completed with normal response. 3) No message corresponding to message number specified exists, or request has already been issued for message number deletion on DELE command within the same connection session. → Make sure to specify correct message number and execute command. Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
7	DELE	Error response is returned (-ERR). Causes and resolution methods: 1) For syntax error → Confirm that character string of DELE command is correct. 2) For command sequences error → Execute command after PASS command is completed with normal response. 3) No message corresponding to message number specified exists, or request has already been issued for message number deletion on DELE command within the same connection session. → Make sure to specify correct message number and execute command. Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
8	QUIT	Error response is returned (-ERR). Causes and resolution methods: For syntax error → Confirm that character string of QUIT command is correct. Timeout due to no response from NACCS's E-mail Server. Causes and resolution methods: There is a chance that damage could occur, so cut off the connection for a while and re-send the request for a connection.
9	Others	Connection breaks during transmission of message. Causes and resolution methods: There is a chance that damage could occur, so re-send the request to open a connection.

(3) Message format

(A) EDIFACT message
When using EDIFACT messages, a communications protocol header and a trailer are added to an EDIFACT message.
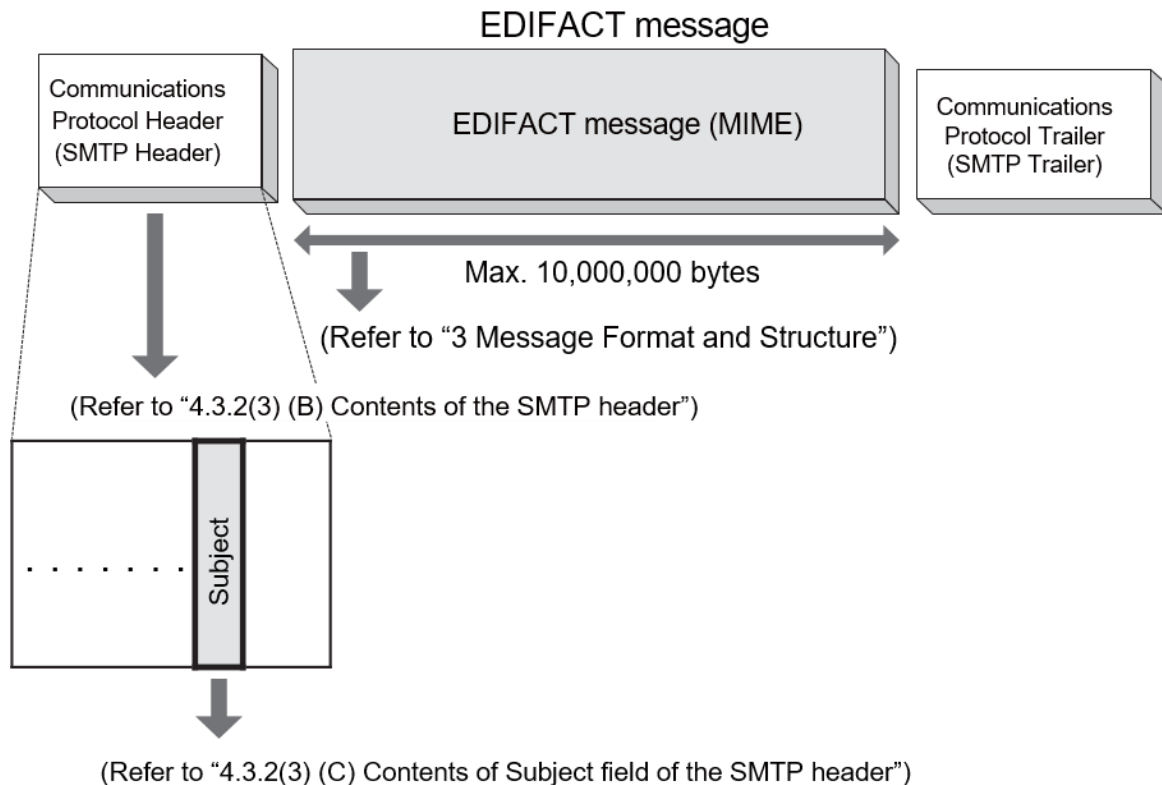Figure 4.3.12 shows outline of message structure.

Figure 4.3.12 Outline of EDIFACT messages

When user of E-mail Style Processing Mode sends EDIFACT messages to NACCS Center server, messages should be created in the following format. Figure 4.3.13 and Figure 4.3.14 show examples of EDIFACT message structure.

1) Filing method
In NACCS, MIME (Multipurpose Internet E-mail Extensions) is used when sending and receiving EDIFACT messages. EDIFACT messages are filled with attached file format.
Details of regulations for MIME messages are as follow.
- ・ MIME version is 1.0.
- ・ Content-Type is Text/plain or Multipart/mixed.
- ・ Content-Transfer-Encoding is BASE64 or Quoted-Printable.
- ・ Only EDIFACT messages are encoded.
- ・ The number of files which can be attached is only 1 file (if user send a Process Request Message with multiple files attached, NACCS Center server processes only forefront 1 file among them, and the rest of files are treated as not subject to processing).

2) Image of message
- • An EDIFACT message comes after the "<CRLF>" code placed after the SMTP header, while being encoded with BASE64 or Quoted-Printable.
- • "<CRLF>" and "."(Period) and "<CRLF>" are placed after the EDIFACT message, as communications protocol trailer.

(a) When Text/plain is specified for Content-Type
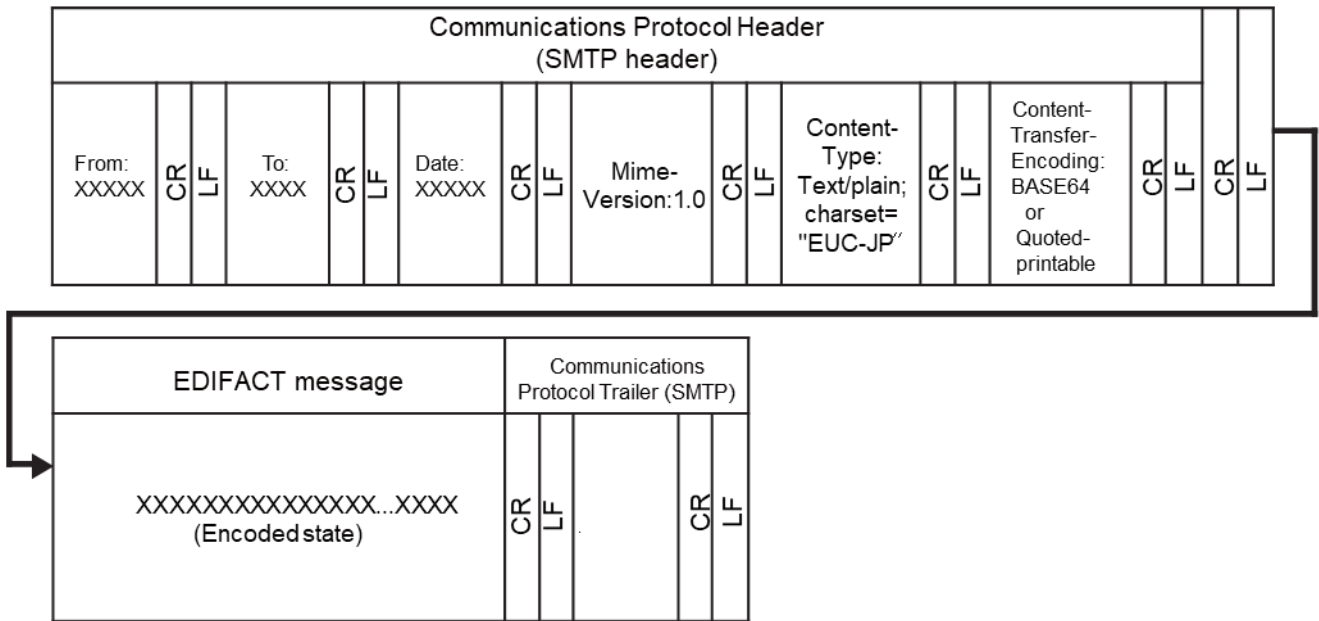
Figure 4.3.13 Example of EDIFACT message Structure (When Text/plain is specified for Content-Type)

For reference: The following figure shows segments of a message displayed on text editor tools, etc.

```
From: XXXXXXX…XXXX<CRLF>
To: XXXXXXXX…XXX<CRLF>
Date: XXXXXXX…XXXX<CRLF>
Mime-Version: 1.0<CRLF>
Content-Type: Text/plain; charset="EUC-JP"<CRLF>
Content-Transfer-Encoding: BASE64<CRLF>
(There are some cases where
"Quoted-printable" is used instead of
"BASE64".)
<CRLF>
```
Communications protocol header
(SMTP header)

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX…XXX
```
EDIFACT message
(Encoded state)

```
<CRLF>
 <CRLF>
```
Communications protocol trailer
(SMTP trailer)

ⓘ How to distinguish between communications protocol trailer and "." (dot)

"." is a communications protocol trailer which means the end of a response. In SMTP, the end of a message is recognized with <CRLF>.<CRLF>. If there is a message in which "." is placed in front of the line, in order to distinguish with the communications protocol trailer, the Center will add "." (byte stuff) in front of the line and send it back to user. In case if the arrival response message has a "." in front of the line and the next character string is not <CRLF>, user will delete "." (byte stuff) in front of the line. Failure to delete byte stuff causes errors such as messages containing an additional unwanted "." (dot)

and message length with an extra byte at a user system.

(b) When Multipart is specified for Content-Type
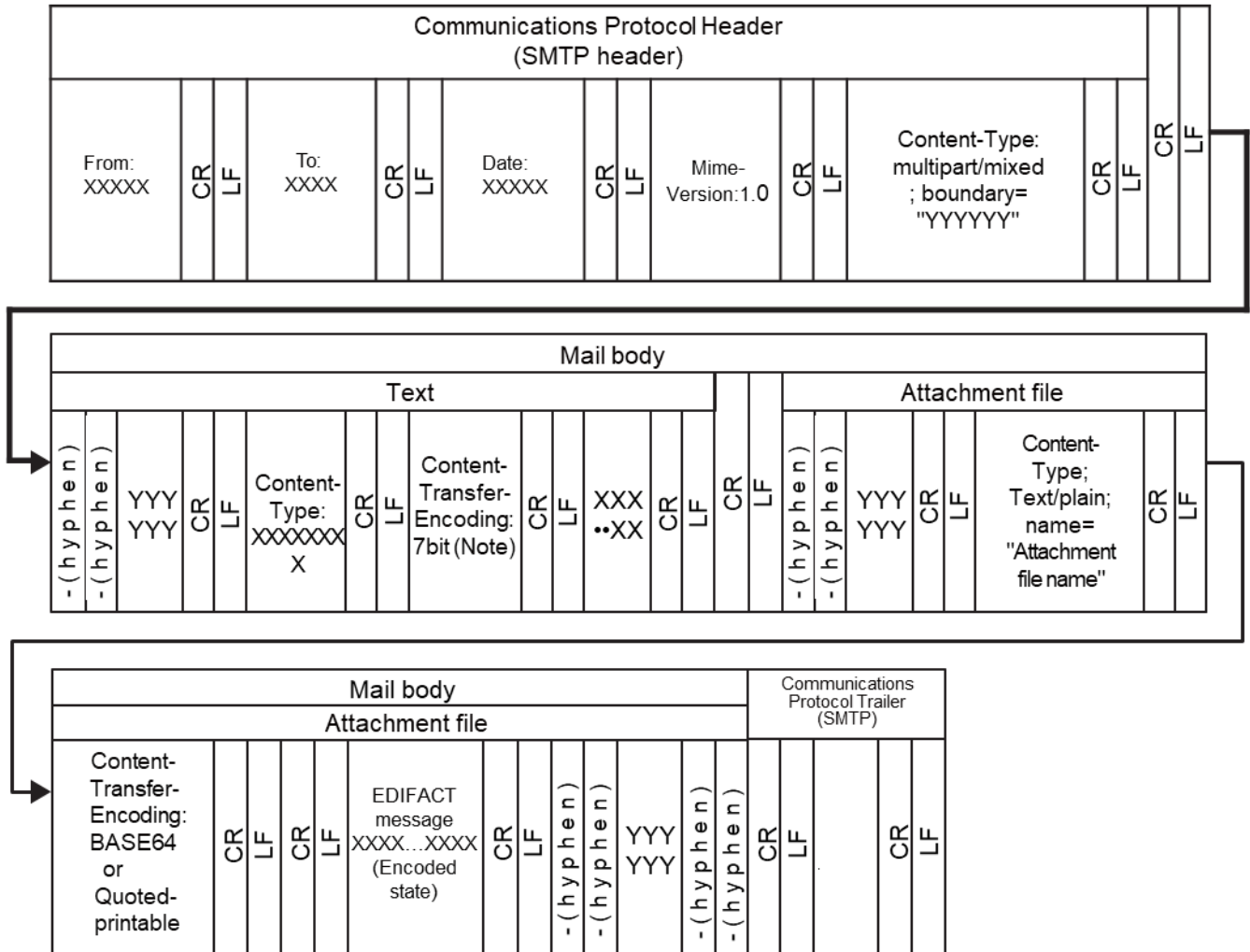
(Note) Setting point of this item is based on E-mail software. "7-bit" is an example.

Figure 4.3.14 Example of EDIFACT message Structure (When Multipart is specified for Content-Type)

For reference: Text presentation of the above contents on text editor tools, etc. is described as follow.

```
From:   XXXXX…XXX<CRLF>
To:   XXXXX…XXX<CRLF>
Date:XXXXX…XXX<CRLF>
Mime-Version: 1.0<CRLF>
Content-Type: multipart/mixed; boundary="YYYYYY"<CRLF>
<CRLF>
--YYYYYY<CRLF>
Content-Type: XX…X<CRLF>
Content-Transfer-Encoding: 7bit<CRLF>
XXXXX…XXX<CRLF>
<CRLF>
--YYYYYY<CRLF>
Content-Type: Text/plain; name="Attachment file name" <CRLF>
Content-Transfer-Encoding: BASE64<CRLF>
(There are some cases where "Quoted-printable" is used instead of "BASE64".)
<CRLF>
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX…XXX
```

Communications protocol header (SMTP header)

EDIFACT message (Encoded state)

```
<CRLF>
--YYYYYY--
<CRLF>
<CRLF>
```

Communications protocol trailer (SMTP trailer)

3) File name of attachment files
 (a) Process Request Message
        User assigns an arbitrary file name. File name should be as follows
            Format: 8.3 format, Total of 12 characters or less of (XXXXXXXX.XXX)
            Available character: One-byte alphanumeric characters (capital letter, lowercase letter), one-byte numeric characters

 (b) Process Result Message
    Process Result Messages should always have only single file name specified. File name should be as follows.
            SEANACCS.B64

(B) Contents of the SMTP header

Contents of the SMTP header included in Process Request Message and Process Result Message are as follows.

1) Process Request Message
Table 4.3.19 shows contents of the SMTP header in a Process Request Message sent from users.

Table 4.3.19 SMTP Header (Process Request Message)

Item No.	Item	Contents specified by the user
1	From	The sender of the E-mail. In NACCS, a source (user) E-mail address assigned by NACCS center is specified (refer to "4.3.4 E-mail Address"). NACCS Center server checks that this is registered in the system, and when not registered, the E-mail will be discarded.
2	To	The receiver of the E-mail. In NACCS, the E-mail address for the E-mail server is specified. (Refer to "4.3.4 E-mail Address")
3	Date	In NACCS, user specifies the date of sending E-mails.
4	MIME-version	In NACCS, "1.0" is specified. If it is not specified, that e- E-mail will be omitted.
5	Content-Type	In NACCS, Text/plain; charset="EUC-JP" is specified. For multipart type, multipart/mixed; boundary="optional value" is specified. If it is not specified, that E-mail will be omitted.
6	Content-Transfer-Encoding	When Text/plain is specified for Content-Type, "BASE64" or "Quoted-Printable" is specified. When multipart/mixed is specified for Content-Type, specified value depends on E-mail software. In this case, encode format of the attachment files in the E-mail body is specified to "BASE64" or "Quoted-Printable". If it is not specified, that E-mail will be omitted.

2) Process Result Message

Table 4.3.20 shows contents of the SMTP header in a Process Result Message (Process Result Output Message and Output Information Message) sent from NACCS to a user.

Table 4.3.20 SMTP Header (Process Result Message)

Item No.	Item	Contents specified by NACCS Center server
1	From	The sender of the E-mail. In NACCS, the E-mail address for the E-mail server is specified.
2	To	The receiver of the E-mail. In NACCS user's e-mail address for Inbox which is used to store Process Result Messages is specified.
3	Date	The date the message is sent to the receiver is specified.
4	Subject	(See "4.3.1.3 (3) Contents of Subject field of the SMTP header")
5	MIME-Version	In NACCS "1.0" is specified.
6	Content-Type	In NACCS, Text/plain; charset="EUC-JP" is specified.
7	Content-Transfer-Encoding	In NACCS "BASE64" is specified.
8	Content-Disposition	In NACCS, attachment; filename="attachment file name" is specified.

(C) Contents of Subject field of the SMTP header

Contents of Subject field of the SMTP header included in a Process Result Message sent from the center server to a user are as follows.

1) Purpose
The purpose of this is by NACCS Center server specifying the contents described in "(B)" following in the Subject of the SMTP header, details of the Process Result Messages stored in the E-mail can be read without the user opening the E-mail.

2) Contents of Subject field
A common format is used for both Process Result Output Message and Output Information Messages.
Table 4.3.21 shows contents of Subject field.

Table 4.3.21　　Contents of Subject Field

Field name	length	Outline
Procedure-by-procedure data	64	For example, Process Result Code, declaration number, B/L Number, and control number are specified. A space is used as a data separator. (Refer to Table A6-8 " Output Information Code List ")

3) Others
Since contents of Subject field are included in an EDIFACT message body, Subject field is not specifically useful for users who do not need to handle its contents.
(Subject field can be omitted)

4.3.3 Mailbox

(1) Outline of mailbox

For users using E-mail Style Processing Mode to connect with NACCS, an Outbox and Inbox are available in NACCS Center server.

(A) Outbox
The Outbox is a mailbox that stores Process Request Messages sent from the user to NACCS. The user sends a message to the mailbox in NACCS Center server.
The Outbox is shared among all users.

(B) Inbox
The Inbox is a mailbox that stores Process Result Messages (Process Result Output Messages and Output Information Messages) in NACCS Center server.
The user sends a request to retrieve a message from the E-mailbox in NACCS Center server and receives the relevant Process Result Message.

The user uses a mailbox ID and mailbox password when retrieving a Process Result Message from the Inbox.

Mailbox ID
A mailbox ID is the Identifier for the mailbox where relevant messages are stored.
A mailbox ID is used as an authentication tool for retrieving messages.
Mailbox password
A mailbox password and mailbox ID are used for access authentication for retrieving messages.

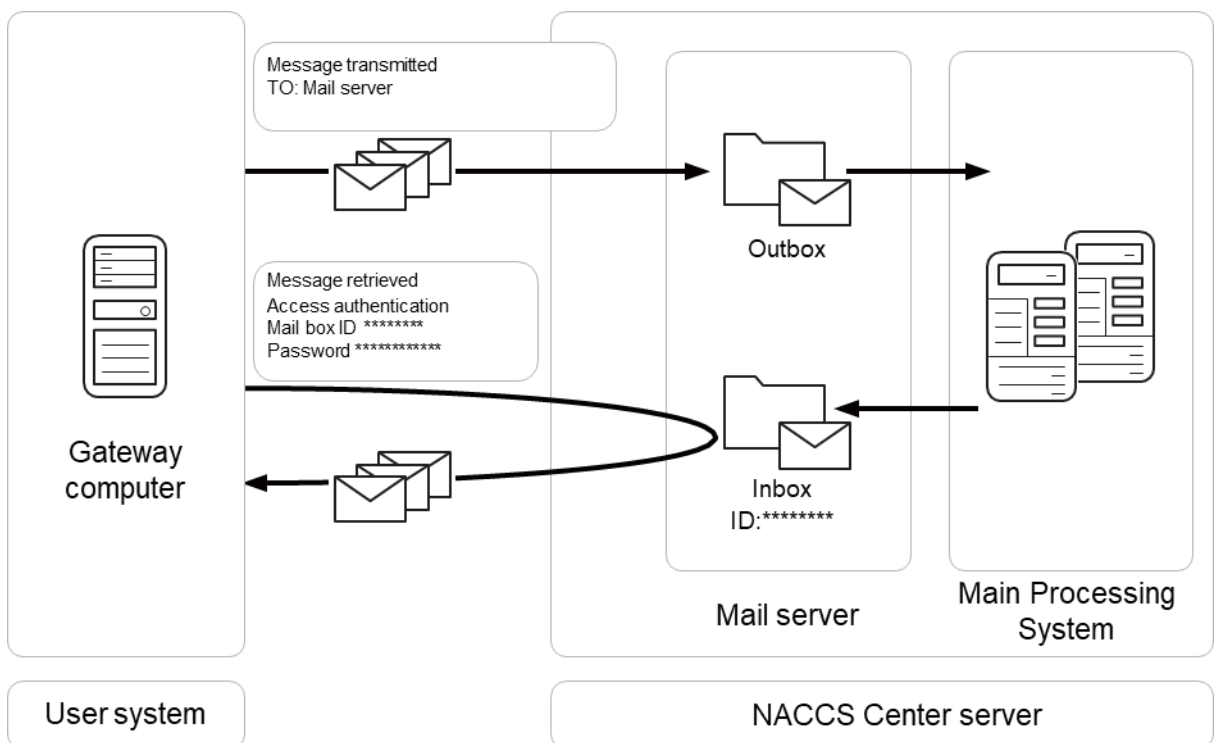Figure 4.3.15 shows outline of mailbox operation.

Figure 4.3.15   Mailbox Operation

(2) Mailbox Assignment

The huge number of mailboxes in NACCS Center server affects the system's performance. Therefore, it is best to keep the total number to a minimum.
Table 4.3.22 shows standard for mailbox allocation for each Connection Mode in NACCS. Appendix 5 gives examples of usage rate of the Inbox.

Table 4.3.22 Mailbox Assignment

	Mailbox Assignment
Gateway connection	As many mailboxes as the user wishes

(3) Process Request Messages in sequence

In NACCS, Process Request Message sent from the user will be stored in the Outbox in NACCS Center server. The messages will be retrieved from the Outbox one by one on a user Code-by-user Code basis and then transferred to the Main Processing System.

(4) Retrieval of Process Result Messages

When sending a request to retrieve a Process Result Message to the Inbox, an interval of (at least 3 minutes) specified by NACCS Center is required between the last request and the current one. The reason is that if users frequently issue requests to retrieve Process Result Messages from their Inbox, the E-mail server may be overloaded, As a result, the system response becomes slow and it takes a longer time to verify the contents of Process Result Messages.
In addition, users must issue a DELE command after retrieving messages by the RETR command to delete the retrieved messages from their mailbox.

Figure 4.3.16 gives the cautionary notes for cases where the Inbox is shared among more than one gateway computer.
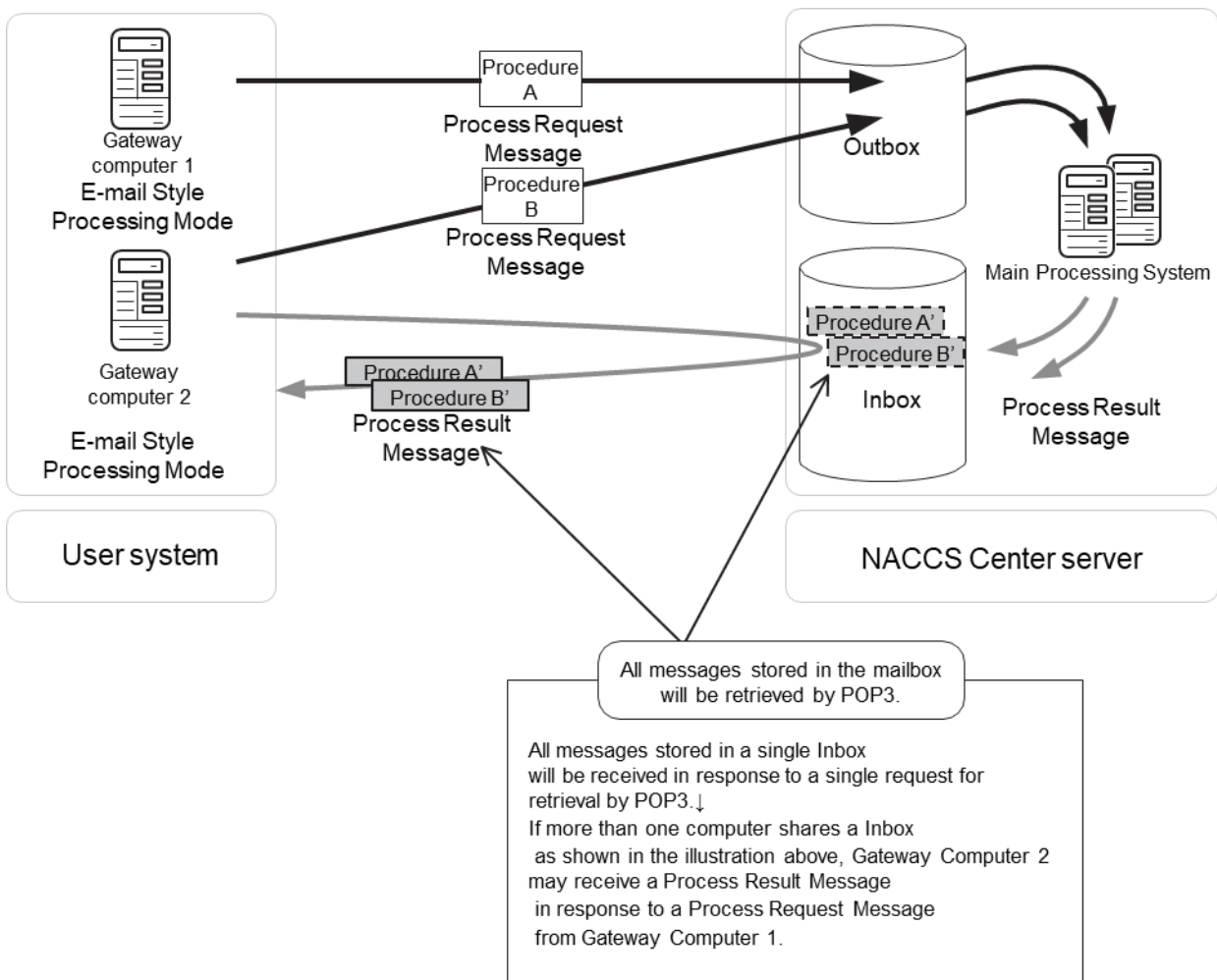
Figure 4.3.16　　Cautionary Notes for Cases Where Inbox is Shared Among Multiple Gateway Computers

(5) Retention period of messages stored in mailbox

In NACCS, Process Request Messages sent from users or Process Result Messages retrieved by users will be deleted in the following manner:
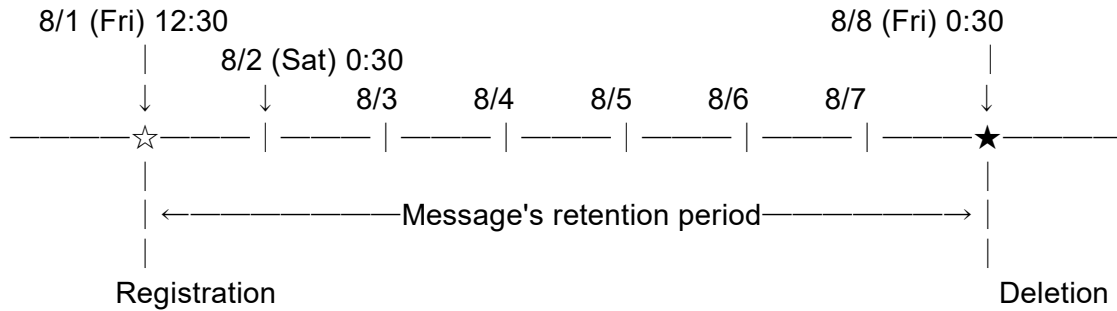
(A) Process Request Message

A Process Request Message will be deleted after being transferred from the E-mail server to the Main Processing System.

(B) Process Result Message

A Process Result Message will be deleted after being retrieved.

Process Result Messages which are yet to be retrieved by users will be retained in the mailbox for 7 days (including Saturdays, Sundays and national holidays) after entering into the mailbox. Message deletion will be carried out at a specified time during the night.

For reference: Example of deletion of Process Result Message stored in mailbox:
(Assumption: The specified time for deletion/retention at 0:30.)

```
        8/1 (Fri) 12:30                                  8/8 (Fri) 0:30
              │        8/2 (Sat) 0:30
              │              │     8/3     8/4     8/5     8/6     8/7        │
              ↓              ↓      │       │       │       │       │         ↓
   ──────☆─────  │ ───── │ ───── │ ───── │ ───── │ ───── │ ─────★───────
              │                                                             │
              │ ←───────────────Message's retention period───────────────→ │
              │                                                             │
           Registration                                                 Deletion
```

(6) Restrictions on re-transmission of a same message

Unnecessary re-transmission of a same message will cause the entire NACCS system to overload which may cause reduced processing capacity. Therefore, in principle, the user should not send an exactly same Process Request Message more than once (e.g., Manifest Information Registration of a single cargo B/L).
   However, if the Process Result Message is not output within a NACCS Center-specified retention period, the user can re-send the same Process Request Message, provided that it is confirmed that the relevant procedure has not been processed yet using the inquiry procedure.

(7) Re-retrieval of a same message

If the Process Result Message retrieved once (Process Result Output Message or Output Information Message) is inadvertently lost and or is left unretrieved throughout a specified retention period, the message can still be retrieved in the following manner: However, Process Result Output Messages cannot be output again.
 (A) Re-send the Process Request Message for the inquiry procedure.
 (B) Implement the output procedure again, if the output information message can be re-retrieved.

(8) Measures against mailbox overflow

In NACCS, the E-mails user retrieves from the mailbox will be deleted. In addition, the unprocessed E-mails which are not retrieved from the mailbox will be deleted after 7 days passed.
   Therefore, it is unlikely that E-mails will continue to be stored at the NACCS mailbox, so there is little possibility the mailbox will become full.
   However, if by any chance there is a possibility that the mailbox will overflow, avoid overflow by implementing the following countermeasures.

 (A) Outbox
   In NACCS, if the usage rate of the Outbox in NACCS Center server exceeds the limit, receipt of all message from users will be suspended. In this case, a timeout message will be sent to the users. As the users need to re-send messages timed out, a user system must be provided with a function to temporarily store messages that have been created.
 (B) Inbox
   In NACCS, if the usage rate of the Inbox in NACCS Center server exceeds the limit, receipt of messages from the Main Processing System to the Inbox will be suspended. In

this case, the users need to retrieve the messages from the Inbox immediately. (NACCS Center will make the users an announcement).

In addition to the cases mentioned above, when the system is overloaded, overload control will be activated and Receipt of Messages from all users may be suspended. (NACCS Center will make the users an announcement.)

4.3.4 E-mail address

(1) Outline of user's E-mail address and address assignment policy

The E-mail address account used in E-mail Style Processing Mode on the NACCS system shall match the mailbox ID. In other words, each user using E-mail Style Processing Mode will have one mailbox and one E-mail address.

Figure 4.3.17 shows an example of an E-mail address given in an SMTP header in Process Request Message and Process Result Message. The user's E-mail address is displayed in the From field of "1) Process Request Message" and in the To field of "2) Process Result Message ", while NACCS Center server's E-mail address is displayed in the To field of "1) Process Request Message" and in the From field of "2) Process Result Message ".
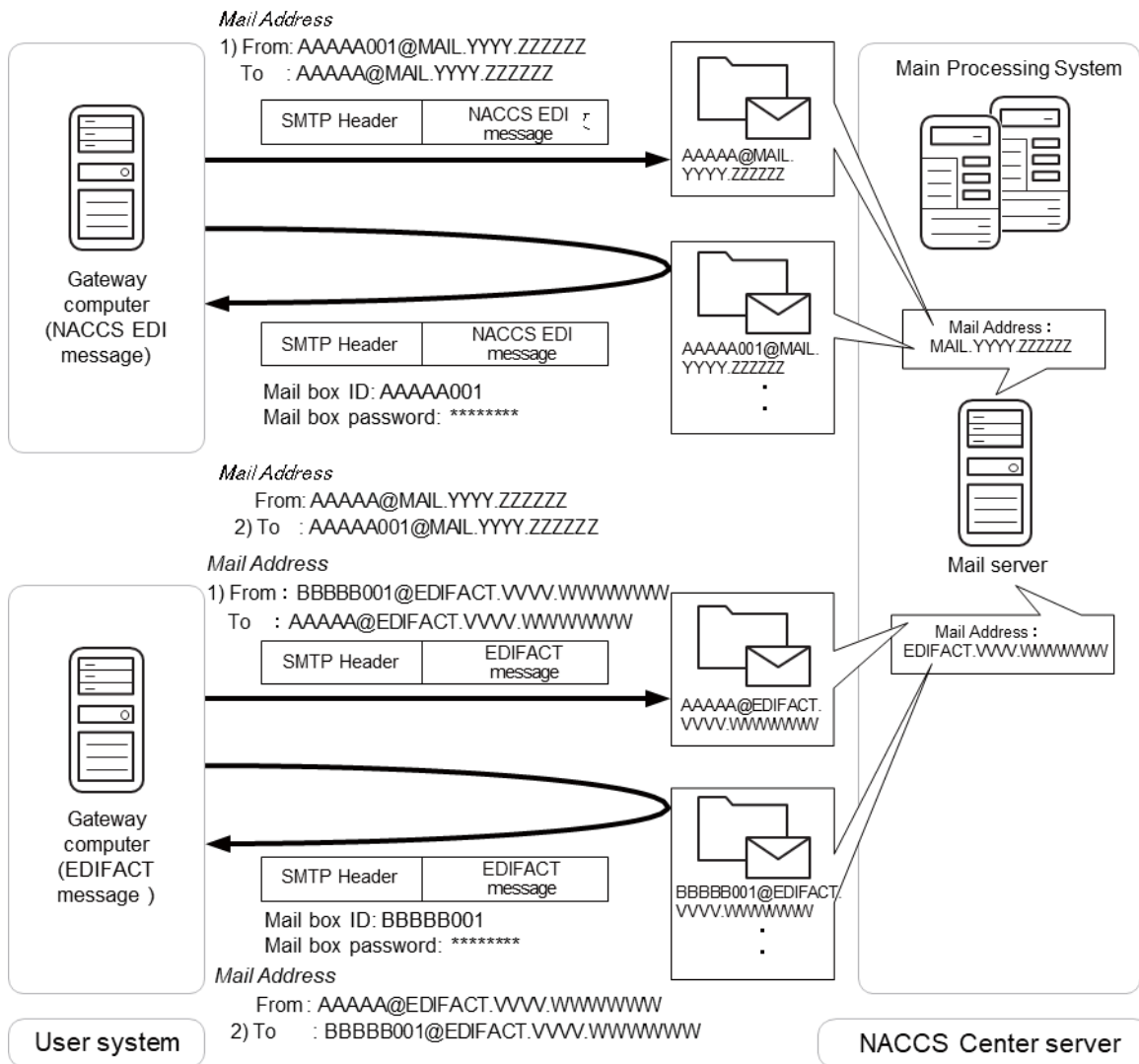
Figure 4.3.17   E-mail Address in SMTP Header

(2) User's E-mail address in E-mail Style Processing Mode

Figure 4.3.18 shows the format of user's E-mail address used in E-mail Style Processing Mode:

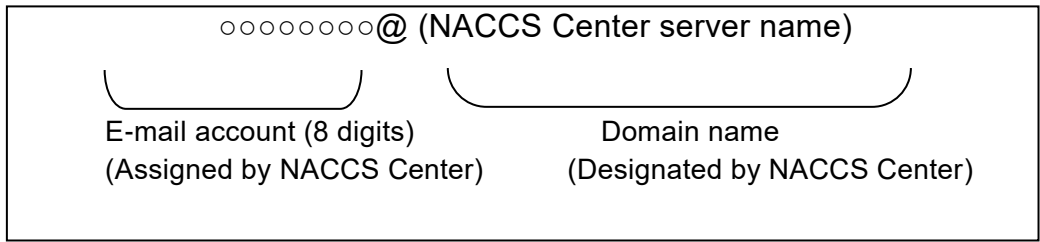In addition, format of E-mail account is similar to Mailbox ID.

○○○○○○○○@ (NACCS Center server name)

E-mail account (8 digits)　　　　Domain name
(Assigned by NACCS Center)　　(Designated by NACCS Center)

Figure 4.3.18　Format of user's E-mail Address in E-mail Style Processing Mode (one-byte capital letters)

(3) NACCS Center server's E-mail address in E-mail Style Processing Mode

Figure 4.3.19 shows the format of the Center server's E-mail address used in E-mail Style Processing Mode:

NACCS @ (NACCS Center server's server name))

E-mail account　　　　　　　　Domain name
(Fixed)　　　　　　　　(Designated by NACCS Center)
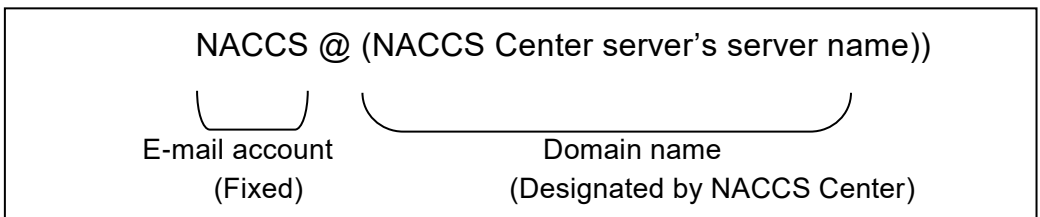
Figure 4.3.19　Format of NACCS Center server's E-mail Address in E-mail Style Processing Mode (one-byte capital letters)

(4) E-mail address used when sending a message

E-mail addresses in the From and To fields given in the SMTP header in a Process Request Message sent from the user to NACCS Center server shall be given as follows:

From: User E-mail address
To: NACCS Center server E-mail address

E-mail addresses in the From and To fields are mandatory: as a communications protocol for the From field; as a means to identify the destination's E-mail server for the To field.

(5) E-mail address used when receiving a message

E-mail addresses in the From and To fields given in the SMTP header in a Process Result Message sent from NACCS Center server to the user shall be given as follows:

From: NACCS Center server E-mail address
To: User E-mail address.

The above addresses will be provided on the NACCS's E-mail Server.

(6) Notification of E-mail address

The E-mail address used in a message sent to / from a user is provided and announced by NACCS Center. Users must use these addresses.

4.3.5 Procedure processing sequence

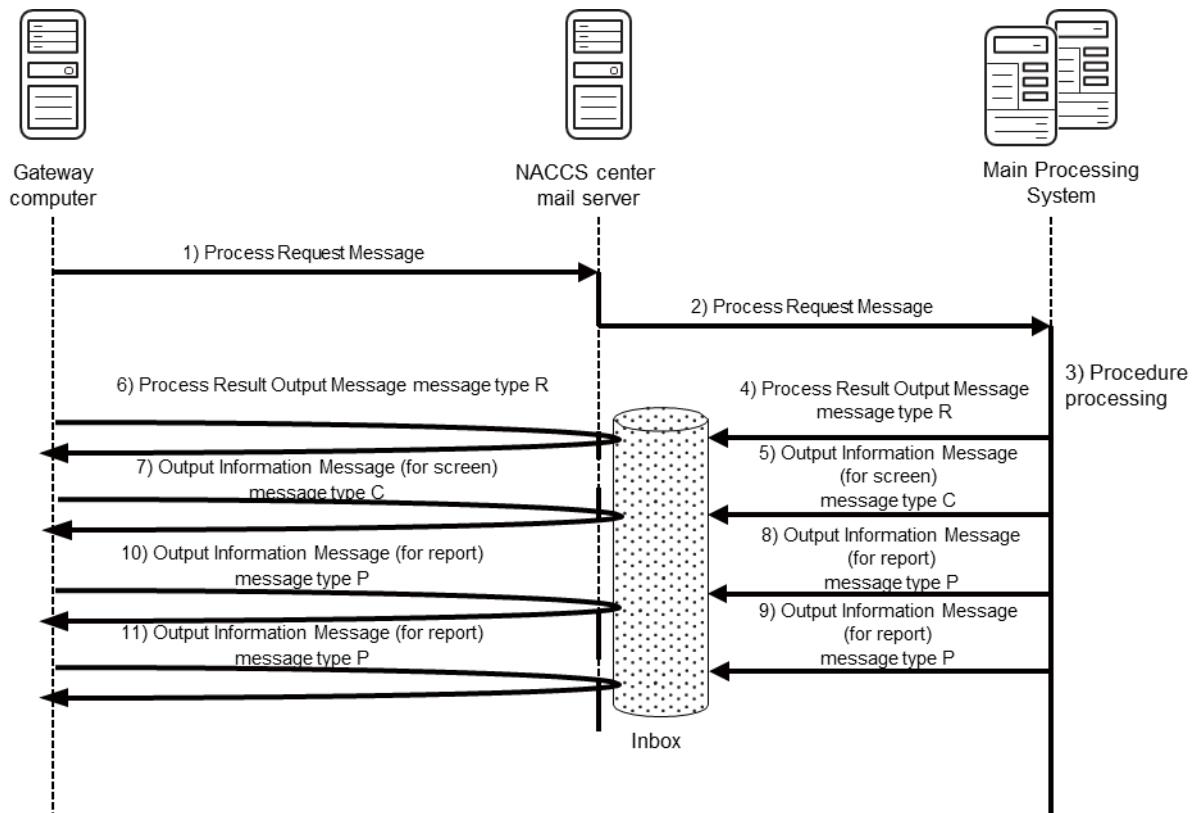Figure 4.3.20 shows a message processing sequence in E-mail Style Processing Mode:

Figure 4.3.20   Message processing sequence

(1) Using E-mail Style Processing Mode, the user sends a Process Request Message using SMTP to the NACCS's E-mail Server.
- ・ See "4.3.1.2 Details of Communications Protocol" for a SMTP command sequence in sending a Process Request Message.
- ・ Process Request Message format varies depending on the procedure. See the Procedure Specification for individual formats.
- ・ Process Request Message formats are represented by NACCS EDI format, MIME format and XML format.

(2) The E-mail server checks the Process Request Message received and forwards it to the Main Processing System.
- ・ The E-mail server also converts an EDIFACT message to a NACCS EDI message.

(3) The Main Processing System checks the Process Request Message forwarded and executes the procedure processing.

(4) and (5) The Main Processing System registers a Process Result Message with the Inbox.
      (According to the procedure specifications, there are cases in which more than one Process Result Message will occur. Figure 4.3.20 shows the case in which Process Result Output Message of message type [R] and Output Information Messages (for screen) of message type [C] are sent).
- ・ The E-mail server also converts an NACCS EDI message to an EDIFACT message.

(6) and (7) Using E-mail Style Processing Mode, the user receives a Process Result Message

transmitted to the user's Inbox in the E-mail server using POP3.
- ・ See "4.3.1.2 Details of Communications Protocol" for a POP3 command sequence.
- ・ Process Result Message format varies depending on the procedure. See the Procedure Specification for individual formats.
- ・ Process Result Message formats are represented by NACCS EDI format, MIME format and XML format.

(8) and (9) The Main Processing System transmits a Process Result Message (for report) to the E-mail server.
(No Process Result Message (for report) may be generated or multiple Process Result Message (for report) may be generated depending on the procedure. Figure 4.3.20 shows an example in which two Output Information Messages are transmitted.)
- ・ The E-mail server also converts an NACCS EDI message to an EDIFACT message.

(10) and (11) Using E-mail Style Processing Mode, the user receives a Process Result Message (for report) transmitted to the user's inbox in the E-mail server using POP3.
- ・ See "4.3.1.2 Details of Communications Protocol" for a POP3 command sequence.
- ・ Process Result Message format varies depending on the procedure. See the Procedure Specification for individual formats.
- ・ Process Result Message formats are represented by NACCS EDI format, MIME format and XML format.

(Note 1) When the user sends a retrieval request using POP3, all messages available at that time can be retrieved.
(Note 2) The order of arrival as mentioned in 6), 7), 10) and 11) above is not guaranteed.
(Note 3) An EXC type message and an EXZ type message are generated upon implementation of a procedure processing by a third person, which applies only to portions of a sequence as presented in 8) and 10) (or 9) and 11)) of Figure 4.3.20 above.

4.3.6 Others

(1) Access lines for E-mail style processing mode

E-mail Style Processing Mode (for gateway computers) is available when a gateway computer is set up for a user system, and connect to NACCS via a dedicated line or Fiber Optic Broadband.

(2) Restrictions

E-mail Style Processing Mode (for gateway computers) users must observe the following restrictions:

(A) When sending a request to receive a Process Result Message in the Inbox, after transmission of a notification of completion upon issuance of the QUIT command following deletion of a message in response to the previous request for retrieving a Process Result Message, longer than a specific period of time specified by NACCS Center (3 minutes) must have lapsed before reconnecting to NACCS. The reason is that if users frequently issue requests to retrieve Process Result Messages from their Inbox, the E-mail server may be overloaded.

(B) When establishing a connection to NACCS via a gateway server, the DELE command must be issued to delete a message which has already been retrieved from the mailbox in response to the RETR command for the retrieval of the message.

(C) The QUIT command must be sent upon completion of transmission of all the Process Request Messages. If the QUIT command is not issued from the gateway computer within a specified period of time after transmission of all the Process Request Messages, a connection timeout notification must be issued from the NACCS's E-mail Server to force a disconnection.

(D) If the usage rate of the Inbox at NACCS Center server exceeds a specified limit, Receipt of Messages sent from the Main Processing System to the Inbox will be suspended. In this case, the user must retrieve the messages from the Inbox immediately.

(E) Multiple connections from the same E-mail address are prohibited (the same as connections within the period specified by NACCS Center).

(F) Add ".<CRLF>" at the end of the message (a line with only a period) as the SMTP communications protocol trailer. The last chunk of the data is recognized with "<CRLF>.<CRLF>", with "<CRLF>" placed at the end of the data and "<CRLF>" placed as the communications protocol trailer.

(3) Retention period of attachments stored in the attachment storage table

For retention period for attachment files for each procedure, refer to "System Retention Period for Each (DB)" in "Procedure Specifications".

(4) Other Precautions

When establishing a connection in E-mail Style Processing Mode (for gateway computers), users must observe the following restrictions:

(A) E-mail style processing mode (for gateway computers) is not compatible with APOP (RFC1321 and RFC1939), a mode of authentication exchange in POP3.

(B) When sending a Process Request Message, any message in which the domain name of a user system in the "From" field of the SMTP header is not the domain specified on NACCS Center, will be ignored by the E-mail server. The user system must re-send such messages with the correct settings.

(C) In E-mail Style Processing Mode (for gateway computers), multiple Process Request Messages can be sent consecutively, but Process Request Messages sent from the user are not always processed on a first in, first out basis in the Main Processing System due to the architecture of the E-mail server.

(D) If more than one Process Result Messages are generated for a single procedure requested, the order of arrival to the Inbox is not guaranteed. Figure 4.3.21 shows an example. Therefore, a user system must not be so built that Process Result Output Messages are processed first.

(E) If the usage rate of the Outbox in NACCS Center server exceeds the limit, receipt of all Messages from users will be suspended. In this case, a timeout message will be sent to the users. As the users need to re-send messages timed out, a user system must be provided with a function to temporarily store messages that have been created.

(F) In case of an overload in the system, operation limit such as halts of receiving transaction request messages from all users may be used. In this case, NACCS Center will make the users an announcement.

(G) As there is a limit to the number of users who can access the E-mail server at the same time, there may be a case where the connection between a user system and E-mail server cannot be established.

(H) In the event of NACCS operation from a Backup center following a disaster, the user must make sure to connect to the E-mail server located at the Backup center.

(I) An environment to test the connection is built partly in the Backup center. Therefore, if the Main center is affected due to great disaster, system will be operated in the Backup center, and connection test may be unavailable.
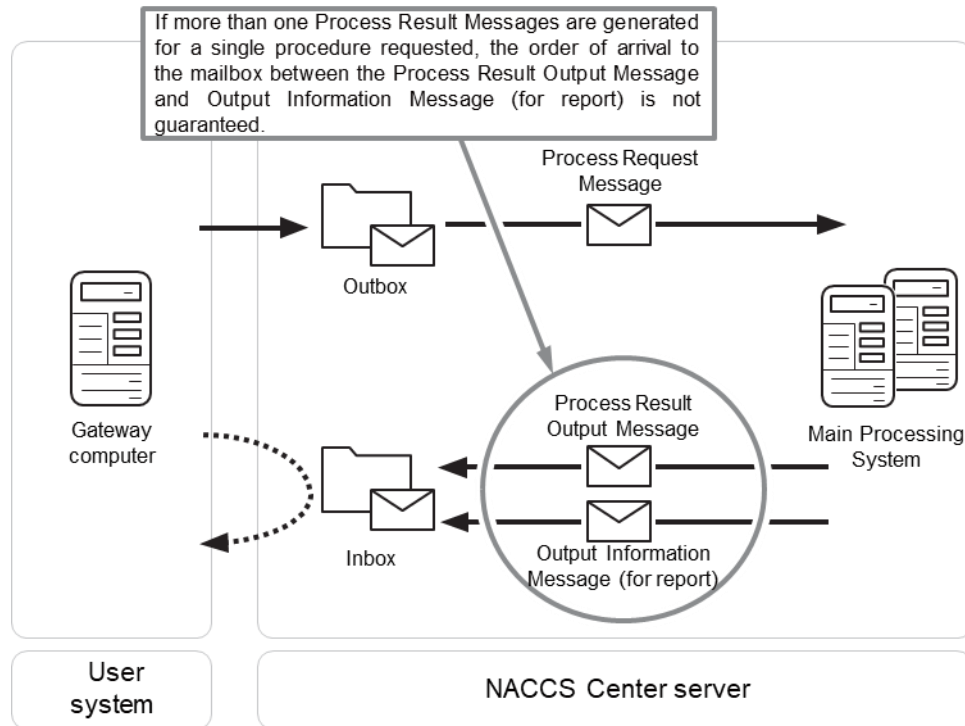
Figure 4.3.21   Sequence of Arrival of More than One Process Result Messages (Example)

(5) Value of each timer classification

Table 4.3.23 shows a list of timer settings predefined for connections established in E-mail Style Processing Mode. Individual timer settings are given in Figure 4.3.22 to Figure 4.3.24.

Table 4.3.23 List of Timer Settings

ID	Observation content	Timer's value
T01	Time required for monitoring the SMTP connection between a user system and the E-mail server on the NACCS Center side during transmission of a message by a user system	Specified by user
T02	Time required for monitoring the POP3 connection between a user system and the E-mail server on the NACCS Center side during receipt of a message by a user system	Specified by user
T03	Idle time following the establishment of a SMTP connection between a user system and the E-mail server on the NACCS Center side	2 minutes
T04	Idle time following the establishment of a POP3 connection between a user system and the E-mail server on the NACCS Center side	2 minutes
T05	Re-sending interval in case if errors occur in NACCS Center server and the Process Result Output Message notifying that "Center busy" returns	3 minutes or more

(Note) The timer's value is specified value in the present system.
(Note) T01 to T05 given in the ID column of the table above are the ID numbers of each timer shown in Figure 4.3.22 to Figure 4.3.24.
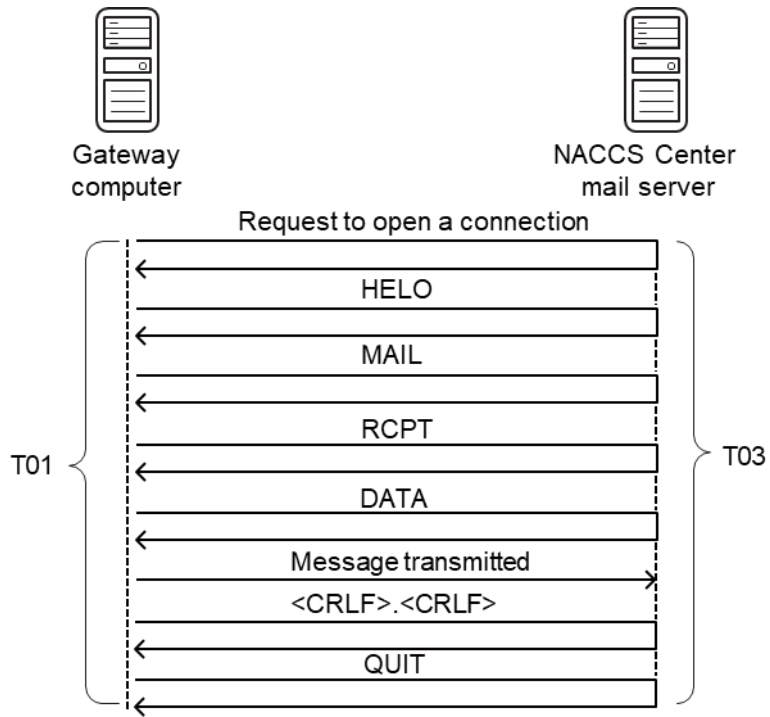
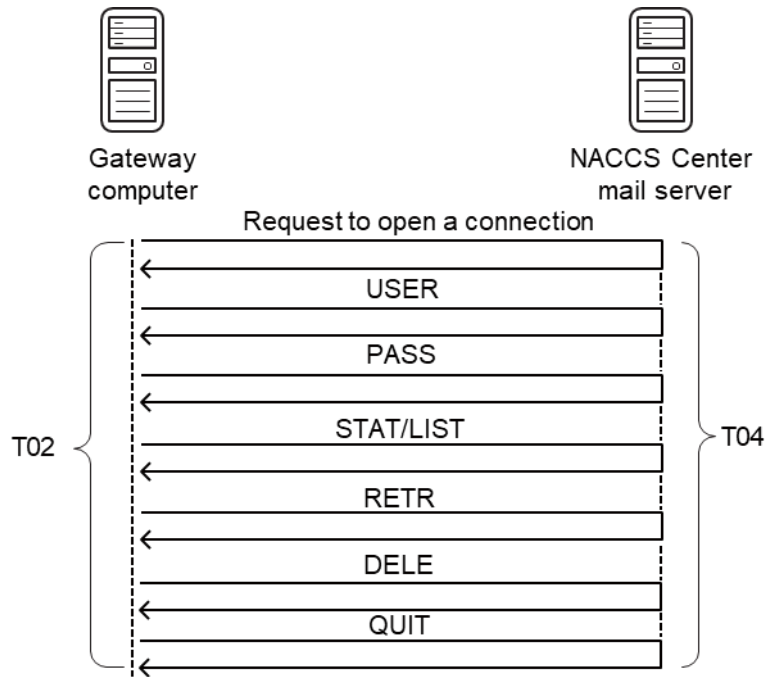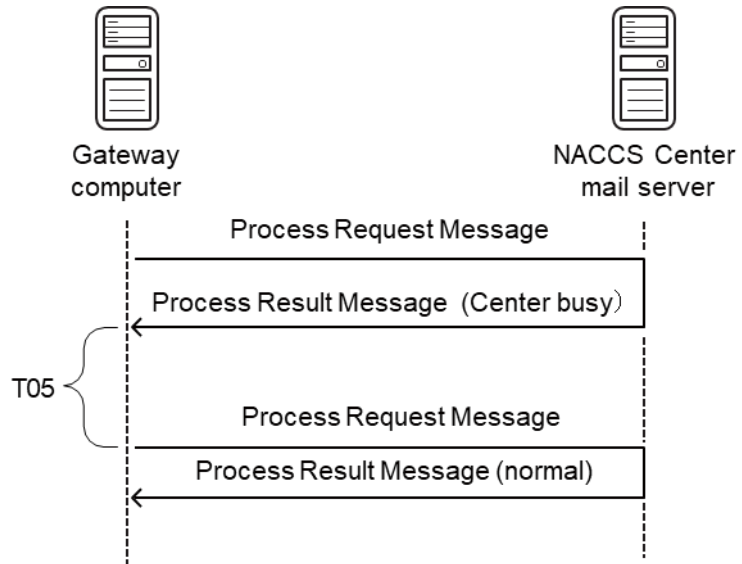Figure 4.3.22　Timer Set for SMTP Connection

Figure 4.3.23　Timer Set for POP3 Connection

Figure 4.3.24   Setting Timer in Case Center is busy