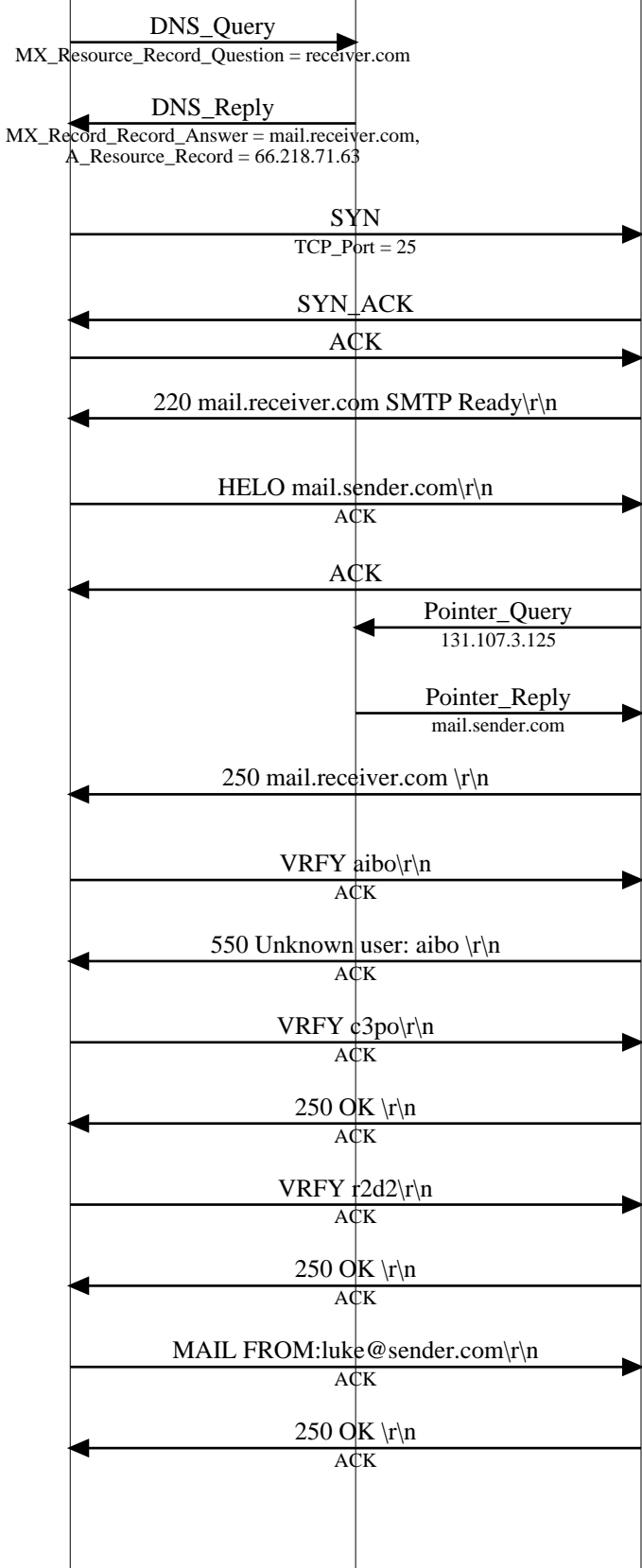


SMTP E-mail Send (SMTP Send)			
Sender	Internet	Receiver	EventHelix.com/EventStudio 2.0 30-Jun-04 23:47 (Page 1)
SMTP Sender	DNS	SMTP Receiver	
SMTP Sender	DNS	SMTP Receiver	

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Simple Mail Transfer Protocol (SMTP) is the most widely used e-mail sending protocol. This sequence diagram describes the steps involved in sending an e-mail. The DNS queries involved in this process have also been covered.

In this example luke@sender.com is trying to send an e-mail to aibo, c3po and r2d2 at receiver.com.



The mail.sender.com mail server first requests an MX record for receiver.com.

The DNS server finds the highest preference mail server for receiver.com and reports the name of the mail server in an MX resource record. The A resource record for the IP address is also included in the message.

mail.sender.com initiates a three way TCP connection handshake by sending a SYN to the IP address of mail.receiver.com. The request is sent to TCP port 25.

The three way handshake has been completed. TCP connection has been established with mail.receiver.com

The SMTP receiver replies with a string starting with 220. This indicates that the receiver is ready to transact with the e-mail sender.

The sending mail server identifies it self by the HELO command. The HELO command contains the server name.

The receiver cross checks the sender's name by performing a pointer query using the IP address of the sender

The pointer reply provides the name of the mail server.

The name in the HELO command and pointer query reply match. The mail.receiver.com server accepts the HELO by replying with 250

The sender requests verification of the first user aibo

The user is not found. The receiver replies with 550. E-mail send to this user will not be attempted.

The c3po verification request is sent

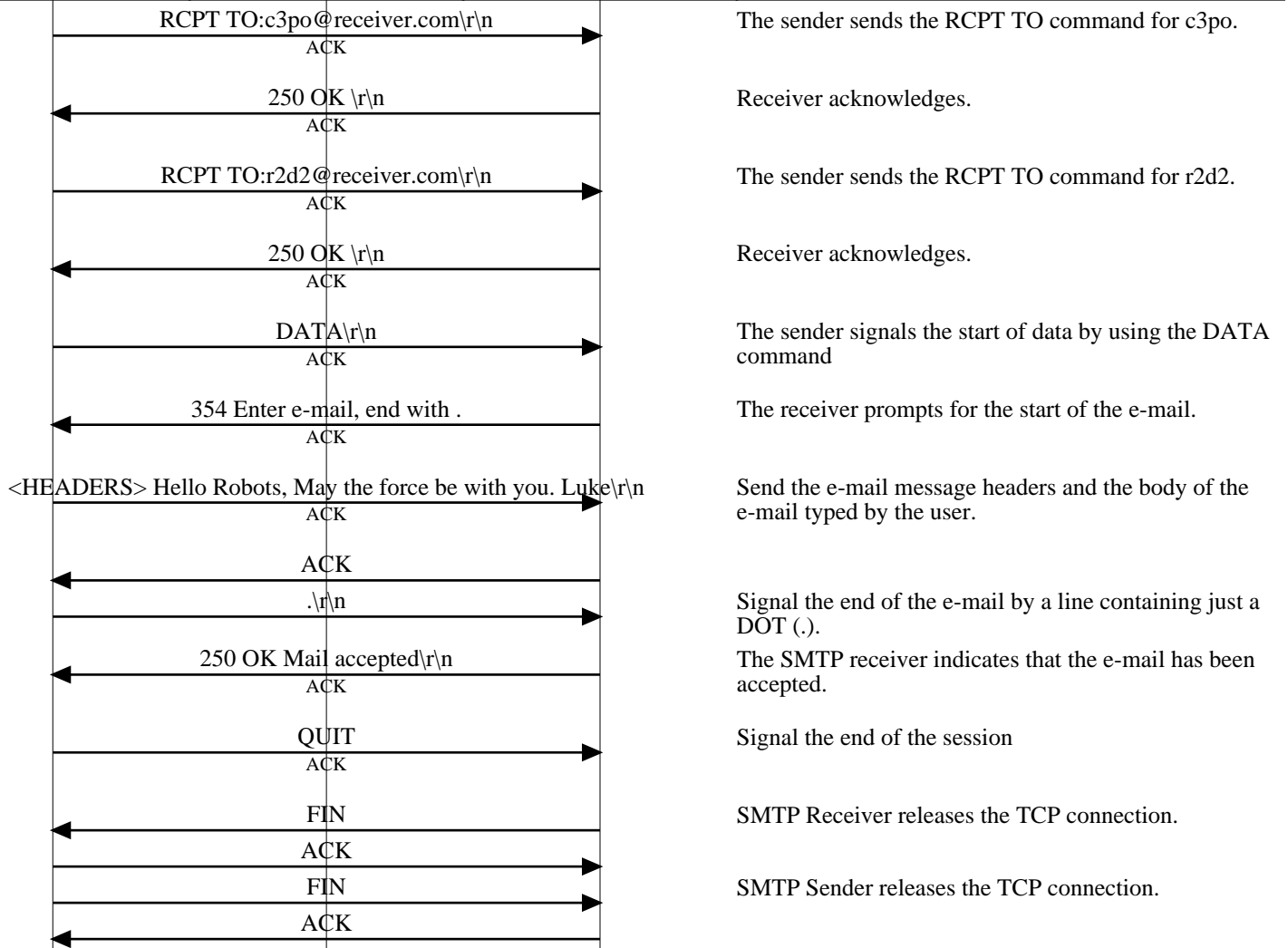
c3po is verified as present

r2d2 is also verified in the same fashion.

SMTP sends the MAIL FROM command of the message envelope

The receiver acknowledges the receipt of the MAIL FROM command

SMTP E-mail Send (SMTP Send)			
Sender	Internet	Receiver	EventHelix.com/EventStudio 2.0
SMTP Sender	DNS	SMTP Receiver	
SMTP Sender	DNS	SMTP Receiver	30-Jun-04 23:47 (Page 2)



The sender sends the RCPT TO command for c3po.

Receiver acknowledges.

The sender sends the RCPT TO command for r2d2.

Receiver acknowledges.

The sender signals the start of data by using the DATA command

The receiver prompts for the start of the e-mail.

Send the e-mail message headers and the body of the e-mail typed by the user.

Signal the end of the e-mail by a line containing just a DOT (.).

The SMTP receiver indicates that the e-mail has been accepted.

Signal the end of the session

SMTP Receiver releases the TCP connection.

SMTP Sender releases the TCP connection.