

Re: TCPIP\$SMTP_MIME_HACK

Source: <http://unix.derkeiler.com/Newsgroups/comp.os.vms/2007-04/msg00066.html>

- *From:* briggs@xxxxxxxxxxxxxxxxxxxx
 - *Date:* 2 Apr 2007 07:33:43 -0500
-

In article <euob23\$ga7\$1@xxxxxxxxxx>, helbig@xxxxxxxxxxxxxxxxxxxxxxxxxxxx (Phillip Helbig---remove CLOTHES to reply) writes:

```
$! TCPIP$SMTP_MIME_HACK
$! When set, SMTP accepts 8BITMIME requests from SMTP clients,
$! preventing the clients from converting the message into a 7-bit
$! format.
$!
$!DEFINE/SYSTEM TCPIP$SMTP_MIME_HACK 1
```

What exactly does this do?

A quick web search turns up RFC 1652 which defines an ESMTP extension using the keyword "8BITMIME".

Background...

Classically, SMTP (RFC 821) is a 7 bit transport mechanism. It is not supposed to be able to handle 8 bit messages. If you want to pump 8 bit messages down a 7 bit pipe you need to encode them.

Classically, MIME (RFC 2045 et al) provides three mechanisms to handle 8 bit messages. You can encode them Quoted-Printable. You can encode them BASE64. Or you can pump them down an 8-bit safe pipe.

But since SMTP isn't 8-bit safe, you're stuck with one of the two encodings.

RFC1652 defines an ESMTP (RFC 1869) extension to allow an SMTP client and server to negotiate an 8-bit safe pipe.

Details...

When an ESMTP client connects to an ESMTP server it will open up the dialogue with:

```
EHLO client.host.name
```

Re: TCPIP\$SMTP_MIME_HACK

This is, of course, the standard ESMTP greeting. If the server is ancient and only understands SMTP the client would fall back to the older "HELO client.host.name" greeting instead. But we're talking ESMTP here.

The server will respond with something that lists the ESMTP options that it is willing to negotiate. For instance:

```
250-server.host.name Hello [192.168.0.1], pleased to meet you
250-ENHANCEDSTATUSCODES
250-EXPN
250-VERB
250-8BITMIME
250-SIZE
250-DSN
250-ONEX
250-ETRN
250-XUSR
250 HELP
```

Note the "250-8BITMIME" there. This advertises that the server understands and is willing to use the 8 bit MIME extension.

In the absence of this advertisement, the server is expected to be able to accept only messages encoded in 7 bit ASCII. The client is expected to encode 8 bit messages accordingly. If the sending user agent has not already done QUOTED-PRINTABLE or BASE64 encoding on the message, the SMTP client is now stuck with that task. [Which is arguably an abuse of protocol layering, but that's neither here nor there].

In the presence of this advertisement, the client can request its use with, for instance:

```
MAIL FROM:<sender-name@xxxxxxxxxxxxxxxxxxxx> BODY=8BITMIME
```

and the server can accept this with

```
250 <sender-name@xxxxxxxxxxxxxxxxxxxx> Sender and 8BITMIME ok
```

So setting

```
#!/DEFINE/SYSTEM TCPIP$SMTP_MIME_HACK 1
```

causes the VMS SMTP receiver to [at least pretend to] be able to receive 8 bit SMTP traffic. It will advertise its willingness in the greeting response. And it will accept the option on the MAIL FROM: line that it parses.

Mind you, I've never used the option and I don't know if there are any

Re: TCPIP\$SMTP_MIME_HACK

Re: TCPIP\$SMTP_MIME_HACK

restrictions on the ability of the VMS smtp server to properly handle
8 bit message bodies. But this is the apparent meaning of the logical name.

.