

## 1 Manual Email Server Interaction

How to send emails manually. This is essential for troubleshooting automated email systems.

## 2 Basics

```
openssl s_client -debug -starttls smtp -crlf -connect smtp.emailprovider.com:465
then continue with
EHLO hostname
AUTH
etc...
```

Here's an example:

```
Compression: NONE
Expansion: NONE
No ALPN negotiated
SSL-Session:
  Protocol : TLSv1.2
  Cipher   : ECDHE-RSA-AES128-GCM-SHA256
  Session-ID: 480E968D62206D936801683C3BB12679DCB5CEDB0B20F4C3C2EB9DC97A54FAF4
  Session-ID-ctx:
  Master-Key: BAB3C9AD7E209D2A979A621731BCB6A0B4368EEE03E2B99CF884D2671E2D62A1A365E
  Key-Arg   : None
  PSK identity: None
  PSK identity hint: None
  SRP username: None
  TLS session ticket lifetime hint: 300 (seconds)
  TLS session ticket:
0000 - 26 e3 0c d9 a7 0e b1 88-52 ce 35 aa a0 8d bd 40   &.....R.5....@
0010 - 0c 39 e4 60 04 59 06 bb-b2 7e 35 f9 56 36 d1 46   .9.'Y...~5.V6.F
0020 - d2 8c 48 29 44 fa 9f 2b-cd af fc 9a 68 b0 b8 63   ..H)D..+....h..c
0030 - 35 06 cd ba 67 57 bf c4-84 19 5a 05 fd a7 62 51   5...gW....Z...bQ
0040 - 1c 63 d7 b0 b4 ce 62 9f-66 13 7b 4c 74 54 86 fa   .c....b.f.{LtT..
0050 - 3b 31 e1 e1 bd 19 29 e8-76 c2 6c 45 db 1d 32 50   ;1....).v.1E..2P
```

```

0060 - 60 63 ec 38 a3 e5 de 26-d6 27 c6 26 60 09 1a 59 'c.8...&.'.&'..Y
0070 - 59 e9 97 b4 07 9f 6c fc-46 cb 9e 0b 40 57 8f 71 Y.....l.F...@W.q
0080 - 20 98 54 06 38 42 47 c1-e6 fd 74 92 dc 11 a5 97 .T.8BG...t.....
0090 - 5d 81 7e 0b 66 b7 8e aa-c0 61 48 0c 90 84 ac 2d ]..f.....aH....-

```

```

Start Time: 1590893833
Timeout : 300 (sec)
Verify return code: 0 (ok)

```

---

250 PIPELINING

EHL0 localhost

write to 0x1c0dd20 [0x1c17853] (45 bytes => 45 (0x2D))

```

0000 - 17 03 03 00 28 2a 65 16-62 f5 2c 8c e5 d9 f2 ef ....(*e.b.,.....
0010 - bb 8a ac 3a 6a dc db 32-79 56 7f 86 90 2e ed 44 ...:j..2yV.....D
0020 - 6e 6a ea 12 64 bb f8 1e-95 7e 63 16 c5 nj..d....~c..

```

read from 0x1c0dd20 [0x1c13303] (5 bytes => 5 (0x5))

```

0000 - 17 03 03 00 a7 .....

```

read from 0x1c0dd20 [0x1c13308] (167 bytes => 167 (0xA7))

```

0000 - 80 ae b0 b8 00 a2 d6 6b-47 42 2c 5d 30 1c 04 bd .....kGB,]0...
0010 - 5c bb 84 61 20 5a 2e 0d-c5 79 28 a9 21 d6 ad 1b \..a Z...y(!...
0020 - 99 e5 fc da a1 fb da bc-70 9e 9b ac 5a e1 0f 8e .....p...Z...
0030 - bb c8 6d cb 2e 27 af 9b-4a 6a e8 17 69 31 63 14 ..m..'..Jj..i1c.
0040 - 24 68 d7 6b cc a7 dc 24-7c d6 4b fa 2a 3e 38 61 $h.k...$|.K.*>8a
0050 - 58 57 4d e8 1c e7 66 3c-22 0f 07 62 42 14 e7 78 XWM...f<"..bB..x
0060 - 86 8a 6c 6f 8f 79 06 f6-dc 33 b5 e9 ec db b8 b4 ..lo.y...3.....
0070 - 0e 7d d7 08 17 cd 4d b3-ac 16 79 08 87 df 31 95 .}....M...y...1.
0080 - 03 8d 9e 8c 25 09 ca 38-d0 be ee 45 38 d8 c4 a5 ....%..8...E8...
0090 - c3 90 44 23 5d e7 9b 1b-c0 40 d2 cc 40 c5 4a e4 ..D#]....@...@.J.
00a0 - 25 38 8b 05 2f b2 33 %8../.3

```

250-www192.vfemail.net

250-8BITMIME

250-AUTH PLAIN

250-BURL imap

250-CHUNKING

250-ENHANCEDSTATUSCODES

250-SIZE 78643200

250 PIPELINING

Here you might enter at the prompt

## AUTH LOGIN

But that will fail:

### AUTH LOGIN

```
write to 0x1c0dd20 [0x1c17853] (41 bytes => 41 (0x29))
0000 - 17 03 03 00 24 2a 65 16-62 f5 2c 8c e6 59 01 74    ....$*e.b.,...Y.t
0010 - 10 99 f5 d2 e6 75 88 d3-b9 58 0e 92 78 fc f1 ad    .....u...X..x...
0020 - c6 aa 50 2a 6c f4 cf e5-dd                        ..P*1....
read from 0x1c0dd20 [0x1c13303] (5 bytes => 5 (0x5))
0000 - 17 03 03 00 3a                                     .....:
read from 0x1c0dd20 [0x1c13308] (58 bytes => 58 (0x3A))
0000 - 80 ae b0 b8 00 a2 d6 6c-bf e5 f8 3d 5a 39 93 2b    .....1...=Z9.+
0010 - f8 a2 12 03 0f 0f 5c a3-95 0a 6c b6 d9 fa 3d 09    .....\.l...=.
0020 - 73 f7 5c 26 8c 41 aa cf-87 0f 65 61 52 7d ec f7    s.\&.A....eaR}..
0030 - 4a fe cd a4 f8 3e be 48-a3 92                      J....>.H..
504 5.5.4 Authentication failed.
```

If you look at the EHLO, it responds with what auth it supports. In this case, AUTH PLAIN. So it accepts plain text passwords (over an encrypted session of course).