Subject: How to use TLS over SMTP
Posted by Shwetha on Sat, 06 Feb 2016 11:55:30 GMT
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Hello,

I am using SMTP for email communication.

Here I got a prob to use TLS over SMTP, could I get any support to overcome this ??

Subject: Re: How to use TLS over SMTP
Posted by mirek on Sun, 07 Feb 2016 06:08:48 GMT
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Do you mean this

https://en.wikipedia.org/wiki/STARTTLS

?

This is not supported yet, but should not be that hard to do, except that I do not have any SMTP server to support this to debug it.

(If you just need secure SMTP over TLS, on standard port 465, you can activate it by Smtp::SSL)

Mirek

Subject: Re: How to use TLS over SMTP
Posted by Tom1 on Fri, 12 May 2017 15:37:25 GMT
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Hi,

My ISP does not support SMTP over SSL (SMTPS on port 465) but instead they support STARTTLS on port 587 in addition to plain connection. It would certainly be useful to be able to use STARTTLS. Any plans to add STARTTLS to Smtp:: ?

(Actually I just tried first time the Smtp:: and found it very useful with many usage scenarios! Very nice!)

Best regards,

Tom

Subject: Re: How to use TLS over SMTP
Posted by Oblivion on Fri, 12 May 2017 19:28:43 GMT
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Hello Tom and Mirek,
I added STARTTLS support to SMTP package and updated its doc accordingly. (It's a few lines of additional code, actually.)

Could you please test it. I only had the chance to test it with gmail (for now) but it works.
I can also add STARTTLS support to POP3 class, if you need it, or think that it would be a worthy addition.

See below message for updated package:
http://www.ultimatepp.org/forums/index.php?t=msg&th=9559 &goto=48098&#msg_48098

Regards.

Oblivion.

Subject: Re: How to use TLS over SMTP
Posted by Oblivion on Fri, 12 May 2017 20:34:58 GMT
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I made a silly mistake.
Setters should be:

```
Smtp&    SSL(bool b = true)                { ssl = b; if(b) starttls = !b; return *this; }
Smtp&    StartTLS(bool b = true)             { starttls = b; if(b) ssl = !b; return *this; }
```

Regards,
Oblivion,

Subject: Re: How to use TLS over SMTP
Posted by Klugier on Fri, 12 May 2017 20:42:43 GMT
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Hello,

The feature ticket must be for that improvement - #1719 Thanks!

Sincerely,
Klugier

Subject: Re: How to use TLS over SMTP
Posted by Tom1 on Sat, 13 May 2017 08:13:45 GMT
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Hi,

Wow, that was fast Oblivion! Thanks!!

However, sending with STARTTLS failed with an error:

503 5.5.1 Error: send HELO/EHLO first

when processing:

String ans = SendRecv("AUTH LOGIN\r\n");

I fixed it by removing the 'else' after initializing STARTTLS and allowing new HELO inside STARTTLS mode. I think I read somewhere that after going into STARTTLS makes server drop all prior information and therefore requires starting over with new HELO:

```
 throw Exc("Server does not provide SMTP service information.");
}
//else
 SendRecvOK("HELO " + org + "\r\n");
if(!IsNull(auth_user)) {
 String ans = SendRecv("AUTH LOGIN\r\n");
...
```

Can you confirm if this is correct? It seems to work fine on my ISP's SMTP server.

Thanks and best regards,

Tom

Subject: Re: How to use TLS over SMTP
Posted by Oblivion on Sat, 13 May 2017 09:14:38 GMT
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Hello Tom,

You are right. Removing "else" works well also on gmail. It seems that a new EHLO/HELO is not

required by every server. Gmail does not require it, at least.
I've read the RFC 3207 some time ago, Guess I should've re-read.

Anyways, please find attached the updated patch. It should work properly now.
Yet new tests would be appreciated.

See below message for updated package:
http://www.ultimatepp.org/forums/index.php?t=msg&th=9559 &goto=48098&#msg_48098

Regards,

Oblivion

Subject: Re: How to use TLS over SMTP
Posted by Tom1 on Sat, 13 May 2017 18:55:35 GMT
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Hi Oblivion,

Works like a charm. Tested on Win10 Professional 32 bit and Linux Mint 18.1 64 bit.

Thanks a lot for your work on this.

Hope this gets merged to Upp tree soon enough.

Best regards,

Tom

Subject: Re: How to use TLS over SMTP
Posted by Tom1 on Mon, 15 May 2017 07:22:57 GMT
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Hi Oblivion,

It seems we need one more change in bool Smtp::Send(const String& msg_):

```
...
// receive initial message & send hello
do{
 ans=SendRecv(Null);
}while(ans[3]=='-');
```

```
String org;
int pos = sender.Find('@');
...
```

That is, adding the do-while loop and checking the answer for the dash. My ISP (or rather their Postfix server) occasionally sends the greeting with a dash (220-...) indicating a multi-line response. and then on the next line will follow the final greeting. If that is not picked out from the queue, the EHLO will fail. After fixing the code as above, the trace from Smtp:: will show desired behavior with Postfix server:

```
SMTP send:
Reply: 220-relay.myisp.com ESMTP Postfix
SMTP send:
Reply: 220 relay.myisp.com ESMTP Postfix
SMTP send: EHLO mydomain.com
...
```

Best regards,

Tom

Subject: Re: How to use TLS over SMTP
Posted by Oblivion on Mon, 15 May 2017 08:34:51 GMT
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Hello Tom,

Quote:
That is, adding the do-while loop and checking the answer for the dash. My ISP (or rather their Postfix server) occasionally sends the greeting with a dash (220-...) indicating a multi-line response. and then on the next line will follow the final greeting. If that is not picked out from the queue, the EHLO will fail. After fixing the code as above, the trace from Smtp:: will show desired behavior with Postfix server:

So, If I understand it correctly, there's a problem with the original SendRecv() code. It doesn't handle multiline replies?
That's easy to pach.
Here's what I'll do: Instead of workarounds I'll rewrite the SendRecv() so that it can support multiline message, and reply codes automatically.
Then I'll refactor the whole login process.

I'll publish a new patch within a couple of days.

Thanks for testing.

Regards,

Oblivion.

Subject: Re: How to use TLS over SMTP
Posted by Tom1 on Mon, 15 May 2017 09:06:49 GMT
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Hi Oblivion,

Sounds good.

Best regards,

Tom

Subject: Re: How to use TLS over SMTP
Posted by Oblivion on Tue, 16 May 2017 18:10:24 GMT
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Hello Tom,

I made some modifications on SMTP:

- STARTTLS is working fine.
- Now it can handle every valid multiline response automatically and properly.
- Now the EHLO is sent first and on failure it will fall back to HELO.
- put proper pieces into place (Made certain parts into methods.)
- Added proper smtp service extension support.
- SMTP class is now internally very flexible. It is possible to add extensions easily when needed (e.g. in future, or on request.)
- Removed manual timeout check (CheckFail()) and went U++ way, using TcpSocket::GetLine(), and TcpSocket::PutAll().

Also I have the code tested on several different configurations . All seems good.
Yet any further testing, and bug reports are appreciated.

Regards,

Oblivion.

File Attachments

1) SMTP.zip, downloaded 435 times

Subject: Re: How to use TLS over SMTP
Posted by Tom1 on Wed, 17 May 2017 08:05:49 GMT
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Hi Oblivion,

The following line compiles with "warning C4804: '<': unsafe use of type 'bool' in operation":

```
if(!ext.Find("starttls") < 0)
```

I guess it should be (?):

```
if(ext.Find("starttls") < 0)
```

Other than that, it works just beautifully. I tested against two servers. One supported unauthenticated access on plain, SSL/TLS and STARTTLS. The other supported authenticated STARTTLS only. All OK!

Guess it's time to get this in Core/SMTP now.

Thank you very much!

Best regards,

Tom

Subject: Re: How to use TLS over SMTP
Posted by Oblivion on Wed, 17 May 2017 08:36:47 GMT
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Quote:The following line compiles with "warning C4804: '<': unsafe use of type 'bool' in operation":

```
if(!ext.Find("starttls") < 0)
```

Ah, that's a typo (a remnant, actually).
Thank you very much for feedback!

Regards.

Oblivion

Subject: Re: How to use TLS over SMTP
Posted by mirek on Wed, 05 Jul 2017 10:15:21 GMT
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It is now in the trunk. In the process, I have also removed that ugly "log_message_body" parameters.
