

TASK 1 – Interact with an SMTP Server

1. Send a message while connected to the IU mail server with the following info:
 - a. To: sice-networks-l@list.indiana.edu
 - b. From: <YOUR IU EMAIL>
 - c. Subject: "<YOUR NAME> Assignment 01 SMTP"
2. Capture the successful SMTP exchange in your terminal session and submit as a text document.

```
nkamble@silo:~$ nc mail-relay.iu.edu 25
220 Sendmail ESMTP - IU Campus Communications Team - Mail-Relay
mail from:<nkamble@iu.edu>
503 5.0.0 Polite people say HELO first
helo
501 5.0.0 helo requires domain address
helo nikhil
250 mail-
relay.iu.edu Hello silo.luddy.indiana.edu [129.79.247.195], pleased to meet y
ou
mail from:<nkamble@iu.edu>
250 2.1.0 <nkamble@iu.edu>... Sender ok
rcpt to:<sice-networks-l@list.indiana.edu>
250 2.1.5 <sice-networks-l@list.indiana.edu>... Recipient ok
data
354 Enter mail, end with "." on a line by itself
Subject: Nikhil Kamble - Assignment 01 SMTP

Regards,
Nikhil Kamble
.
250 2.0.0 185LssCl013370 Message accepted for delivery
```

3. Answer the following questions and submit with part (2) above.

What happens when you try to send to a non-IU email address? Why?

Answer - While using SMTP relay service of IU (mail-relay.iu.edu), when sending an email to a non-IU email address we get a SMTP Error Code 550. This error code basically means that the relaying service was denied due to improper authentication. Additionally, this SMTP connection error is getting denied because of certain firewall policies of both the sender and the receiver.

```
nkamble@silosilo:~$ nc mail-relay.iu.edu 25
220 Sendmail ESMTP - IU Campus Communications Team - Mail-Relay
helo
501 5.0.0 helo requires domain address
mail from:<nkamble@iu.edu>
503 5.0.0 Polite people say HELO first
helo nik
250 mail-
relay.iu.edu Hello silo.luddy.indiana.edu [129.79.247.195], pleased to meet y
ou
mail from:<nkamble@iu.edu>
250 2.1.0 <nkamble@iu.edu>... Sender ok
rcpt to:<nikrox98@gmail.com>
550 5.7.1 <nikrox98@gmail.com>... Relaying denied. Proper authentication requ
ired.
data
503 5.0.0 Need RCPT (recipient)
quit
221 2.0.0 mail-relay.iu.edu closing connection
```

[from the above terminal session: The sender is an existing IU user (nkamble@iu.edu) and the receiver is an existing non-IU address (nikrox98@gmail.com)]

What happens when you use a made-up FROM address? Why?

Answer – The made-up FROM address mostly depends on the domain name and not on the local-part.

Firstly, if you use any made-up local-part with IU domain [e.g., dummy_email@iu.edu] as a sender, this will successfully send an email to the IU domain recipient, even if the sender email address doesn't exist.

```
nkamble@silo:~$ nc mail-relay.iu.edu 25
220 Sendmail ESMTP - IU Campus Communications Team - Mail-Relay
helo nikhil
250 mail-
relay.iu.edu Hello silo.luddy.indiana.edu [129.79.247.195], pleased to meet y
ou
mail from:<dummy_email@iu.edu>
250 2.1.0 <dummy_email@iu.edu>... Sender ok
rcpt to:<nkamble@iu.edu>
250 2.1.5 <nkamble@iu.edu>... Recipient ok
data
354 Enter mail, end with "." on a line by itself
hey nikhil,

this email was sent from a made-up email address.

regards,
dummy
.
250 2.0.0 185M2Egh025389 Message accepted for delivery
```

[from the above terminal session: The sender (dummy_email@iu.edu) technically doesn't exist(but the domain does) and the receiver is an existing IU address (nkamble@iu.edu)]

Secondly, if you use any made-up local-part with a non-existing domain [e.g., dummy@dummy.edu] and send it to an IU domain recipient, this will show an SMTP 553 error code [Domain of sender address does not exist].

```
nkamble@silo:~$ nc mail-relay.iu.edu 25
220 Sendmail ESMTP - IU Campus Communications Team - Mail-Relay
helo jj
250 mail-
relay.iu.edu Hello silo.luddy.indiana.edu [129.79.247.195], pleased to meet y
ou
mail from:<dummy@dummy.edu>
250 2.1.0 <dummy@dummy.edu>... Sender ok
rcpt to:<nkamble@iu.edu>
553 5.1.8 <nkamble@iu.edu>... Domain of sender address dummy@dummy.edu does n
ot exist
data
503 5.0.0 Need RCPT (recipient)
quit
221 2.0.0 mail-relay.iu.edu closing connection
```

[from the above terminal session: The sender (dummy@dummy.edu) technically doesn't exist at all and the receiver is an existing IU address (nkamble@iu.edu)]

Thirdly, if you use an existing domain and valid address [e.g., nikrox98@gmail.com], this will successfully send an email to the IU domain recipient.

```
nkamble@silo:~$ nc mail-relay.iu.edu 25
220 Sendmail ESMTP - IU Campus Communications Team - Mail-Relay
helo jj
250 mail-
relay.iu.edu Hello silo.luddy.indiana.edu [129.79.247.195], pleased to meet y
ou
mail from:<nikrox98@gmail.com>
250 2.1.0 <nikrox98@gmail.com>... Sender ok
rcpt to:<nkamble@iu.edu>
250 2.1.5 <nkamble@iu.edu>... Recipient ok
data
354 Enter mail, end with "." on a line by itself
hey nikhil,
roger that.
.
250 2.0.0 185MKqEw014918 Message accepted for delivery
quit
221 2.0.0 mail-relay.iu.edu closing connection
```

[from the above terminal session: The sender (nikrox98@gmail.com) is a non-IU address and the receiver is an existing IU address (nkamble@iu.edu)]