

Install and configure GNU privacy guard (GNUPG)

```
[henryfbp@pop-os]-(~/D/from-randy)
-> gpg --list-keys (base)
/home/henryfbp/.gnupg/pubring.kbx
-----
pub   rsa3072 2018-09-13 [SC] [expires: 2021-10-17]
      0A40840912135F815BD26155C3B02D99C1C244C3
uid           [ultimate] Henry Post <HenryFBP@gmail.com>
sub   rsa3072 2018-09-13 [E] [expires: 2020-09-12]

pub   rsa3072 2018-09-13 [SC] [expires: 2020-09-12]
      36EB77CBFCB9FAB819D7A9CA79FC9B69844EF44A
uid           [ultimate] Henry Post <hpost@hawk.iit.edu>
sub   rsa3072 2018-09-13 [E] [expires: 2020-09-12]

pub   rsa4096 2017-08-14 [SCE]
      128CF232A9371991C8A65695E08E7E629DB62FB1
uid           [ unknown] Fedora 28 (28) <fedora-28@fedoraproject.org>

pub   rsa4096 2018-02-17 [SCE]
      5A03B4DD8254ECA02FDA1637A20AA56B429476B4
uid           [ unknown] Fedora 29 (29) <fedora-29@fedoraproject.org>

pub   rsa4096 2018-08-11 [SCE]
      F1D8EC98F241AAF20DF69420EF3C111FCFC659B9
uid           [ unknown] Fedora (30) <fedora-30-primary@fedoraproject.org>

pub   rsa4096 2010-04-23 [SCE]
      8C3BE96AF2309184DA5C0DAE3B49DF2A0608B895
uid           [ unknown] EPEL (6) <epel@fedoraproject.org>

pub   rsa4096 2013-12-16 [SCE]
      91E97D7C4A5E96F17F3E888F6A2FAEA2352C64E5
uid           [ unknown] Fedora EPEL (7) <epel@fedoraproject.org>

pub   rsa4096 2018-11-13 [SCE] [expires: 2028-12-31]
      C2A3FA9DC67F68B98BB543F47BB90722DBBDCF7C
uid           [ unknown] Fedora (iot 2019) <fedora-iot-2019@fedoraproject.org>

pub   rsa4096 2015-01-18 [C] [expires: 2020-01-11]
      A490D0F4D311A4153E2BB7CADBB802B258ACD84F
uid           [ full ] Tails developers (offline long-term identity key)
<tails@boum.org>
uid           [ full ] Tails developers <tails@boum.org>
sub   rsa4096 2017-08-28 [S] [expires: 2020-01-11]
sub   rsa4096 2017-08-28 [S] [expires: 2020-01-11]
sub   ed25519 2017-08-28 [S] [expires: 2020-01-11]
sub   rsa4096 2018-08-30 [S] [expires: 2020-01-11]

pub   rsa4096 2010-09-27 [SC] [expires: 2020-02-07]
      4900707DDC5C07F2DECB02839C31503C6D866396
uid           [ unknown] Stefano Zacchiroli <zack@upsilon.cc>
```

Cryptography Task

ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

```
uid      [ unknown] Stefano Zacchiroli <zack@debian.org>
uid      [ unknown] Stefano Zacchiroli <stefano.zacchiroli@inria.fr>
uid      [ unknown] Stefano Zacchiroli <zack@softwareheritage.org>
uid      [ unknown] Stefano Zacchiroli <zack@irif.fr>
sub      rsa4096 2010-09-27 [E]
sub      rsa4096 2012-12-01 [S] [expires: 2020-02-07]

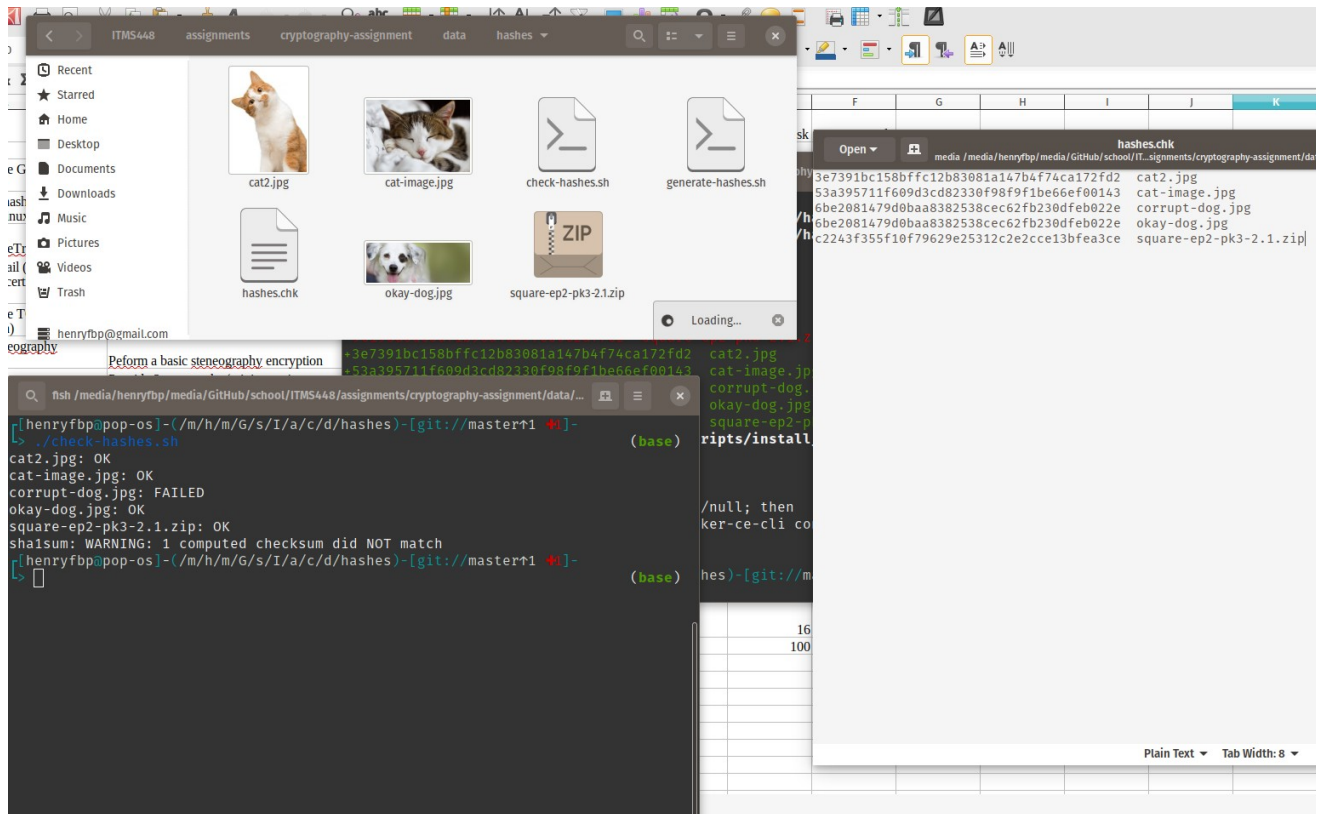
pub      rsa3072 2019-10-17 [SC] [expires: 2021-10-16]
C2299344CB37649D814509E902FDD80B802CEAA1
uid      [ unknown] Randy Random <randyrandom62435123@gmail.com>
sub      rsa3072 2019-10-17 [E] [expires: 2021-10-16]
```

Cryptography Task

ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

Generate a SHA1 hash from the command-line in Linux

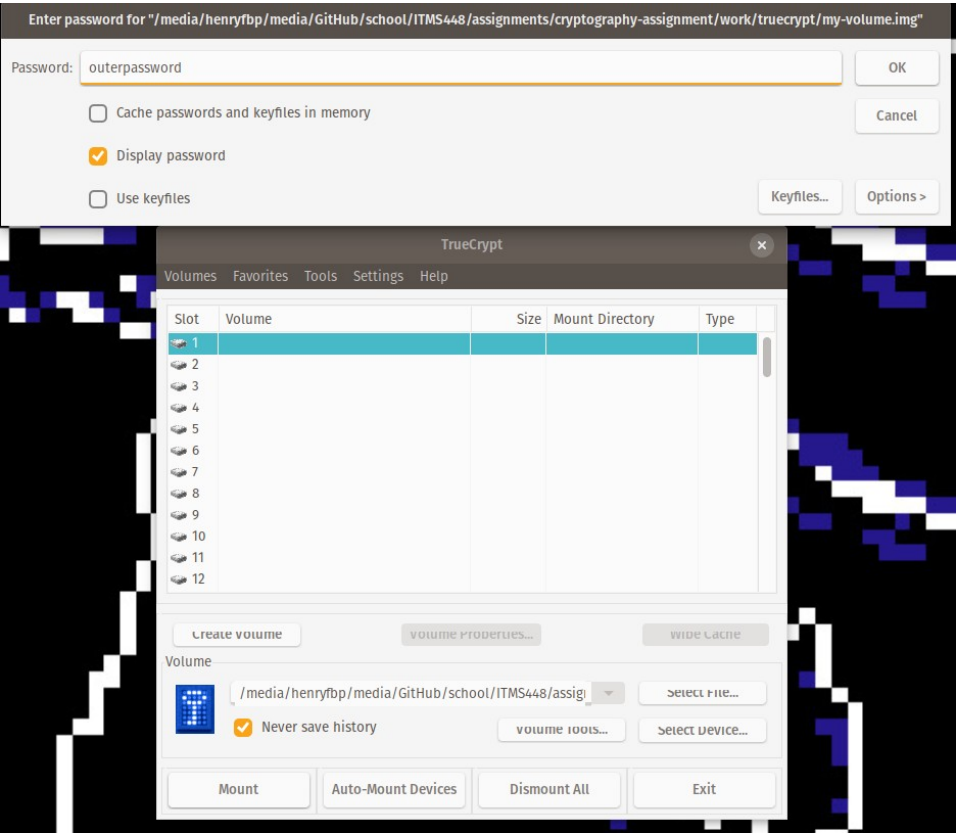


Install and configure TrueCrypt

Volume inside image file info:

```
[henryfbp@pop-os]-(/m/h/m/G/s/I/a/c/w/truecrypt)-[git://master ...2]-(base)
-> ls my-volume.img -lh
-rwxrwxrwx 1 root root 48M Oct 17 22:46 my-volume.img
[henryfbp@pop-os]-(/m/h/m/G/s/I/a/c/w/truecrypt)-[git://master ...2]-(base)
-> cat creds.txt
outerpassword
```

Mounting outer volume:



Slot	Volume	Size	Mount Directory	Type
1	/media/henryfbp/media/GitHub/sch..	47.8 MB	/media/truecrypt1	Normal
2				
3				
4				

Cryptography Task

ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

Writing to the volume:

```
[henryfbp@pop-os]-(/m/h/m/G/s/I/a/c/w/truecrypt)-[git://master ...1]-
-> echo 'secret' > /media/truecrypt1/secrets.txt (base)
[henryfbp@pop-os]-(/m/h/m/G/s/I/a/c/w/truecrypt)-[git://master +1...2]-
-> ls (base)
creds.txt  my-volume.img
[henryfbp@pop-os]-(/m/h/m/G/s/I/a/c/w/truecrypt)-[git://master +1...2]-
-> cd /media/truecrypt1/ (base)
[henryfbp@pop-os]-(/m/truecrypt1)
-> ls (base)
secrets.txt
[henryfbp@pop-os]-(/m/truecrypt1)
-> cat secrets.txt (base)
secret
```

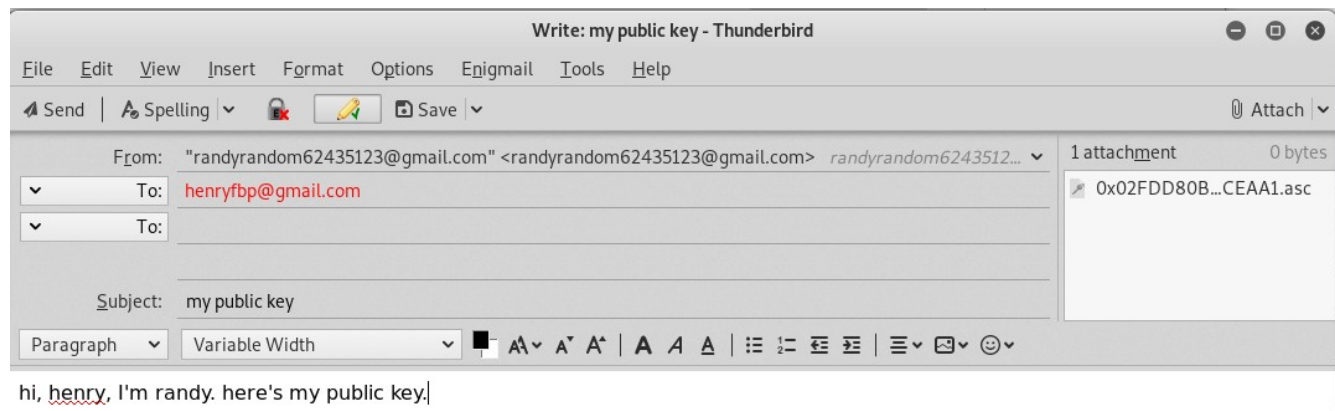
Cryptography Task

ITMS 448

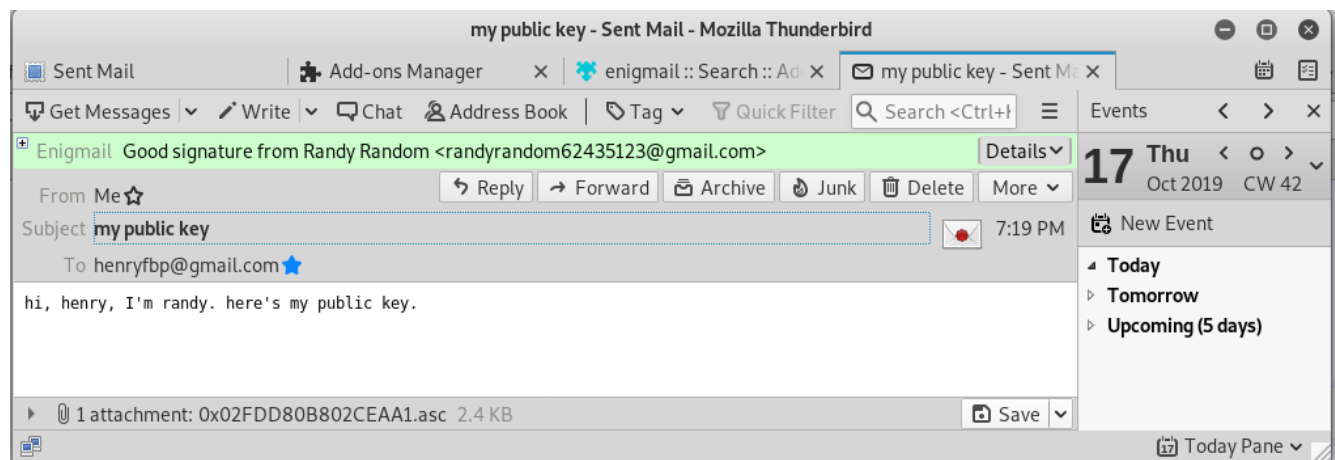
Henry Post, hpost@hawk.iit.edu, Undergraduate

Send encrypted email (includes exchanging digital certificates and decrypting email)

Sending pubkey as Randy to Henry



Receiving pubkey as Henry

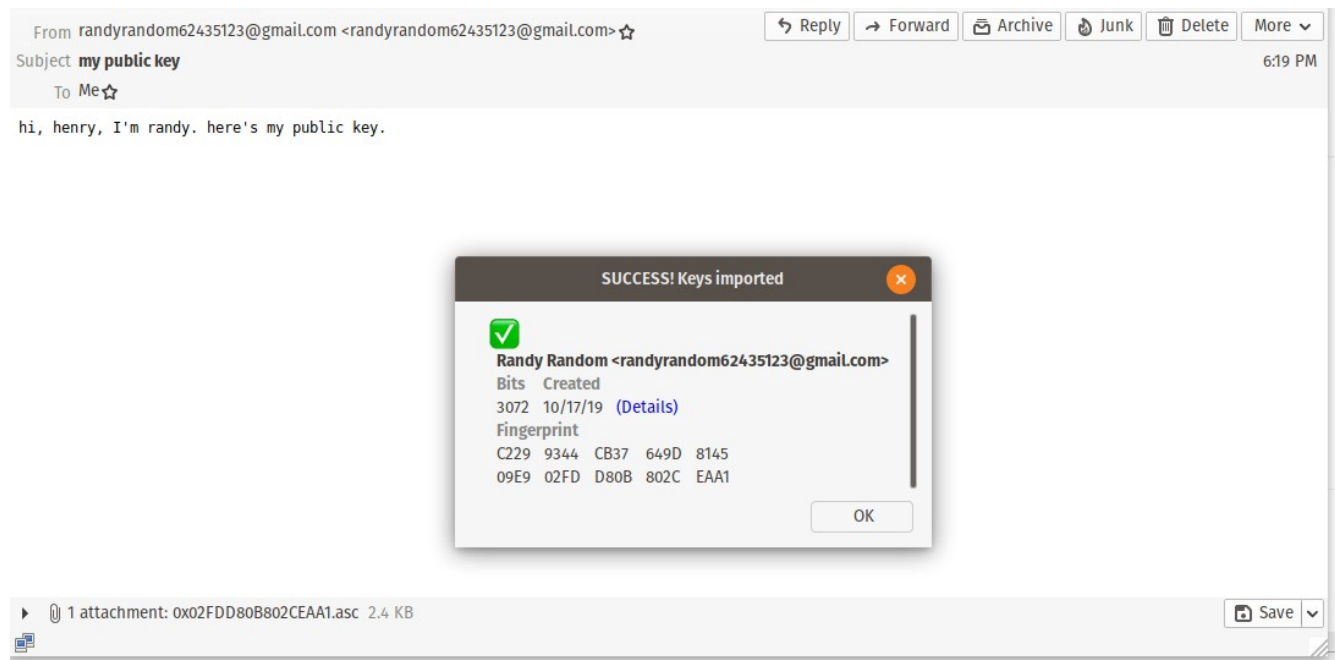


Cryptography Task

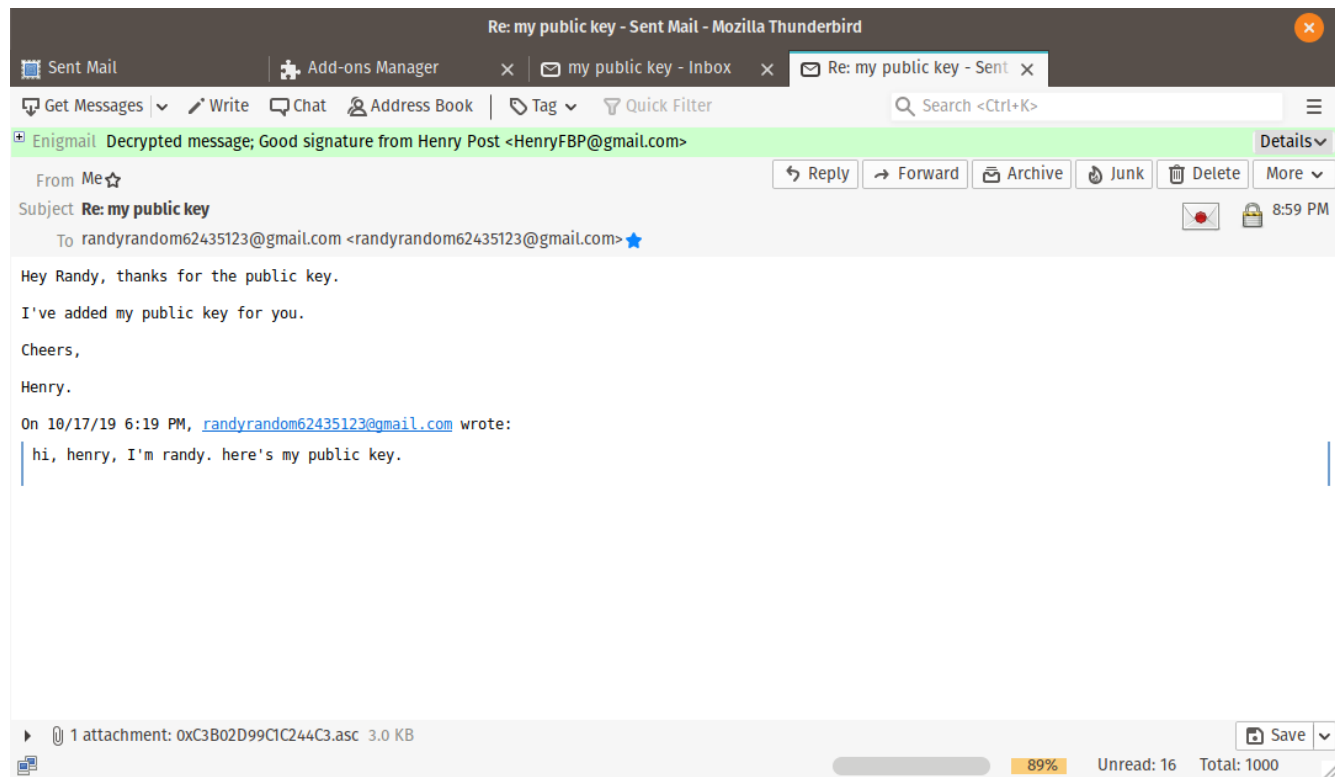
ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

Importing Randy's pubkey



Henry sending his encrypted pubkey to Randy

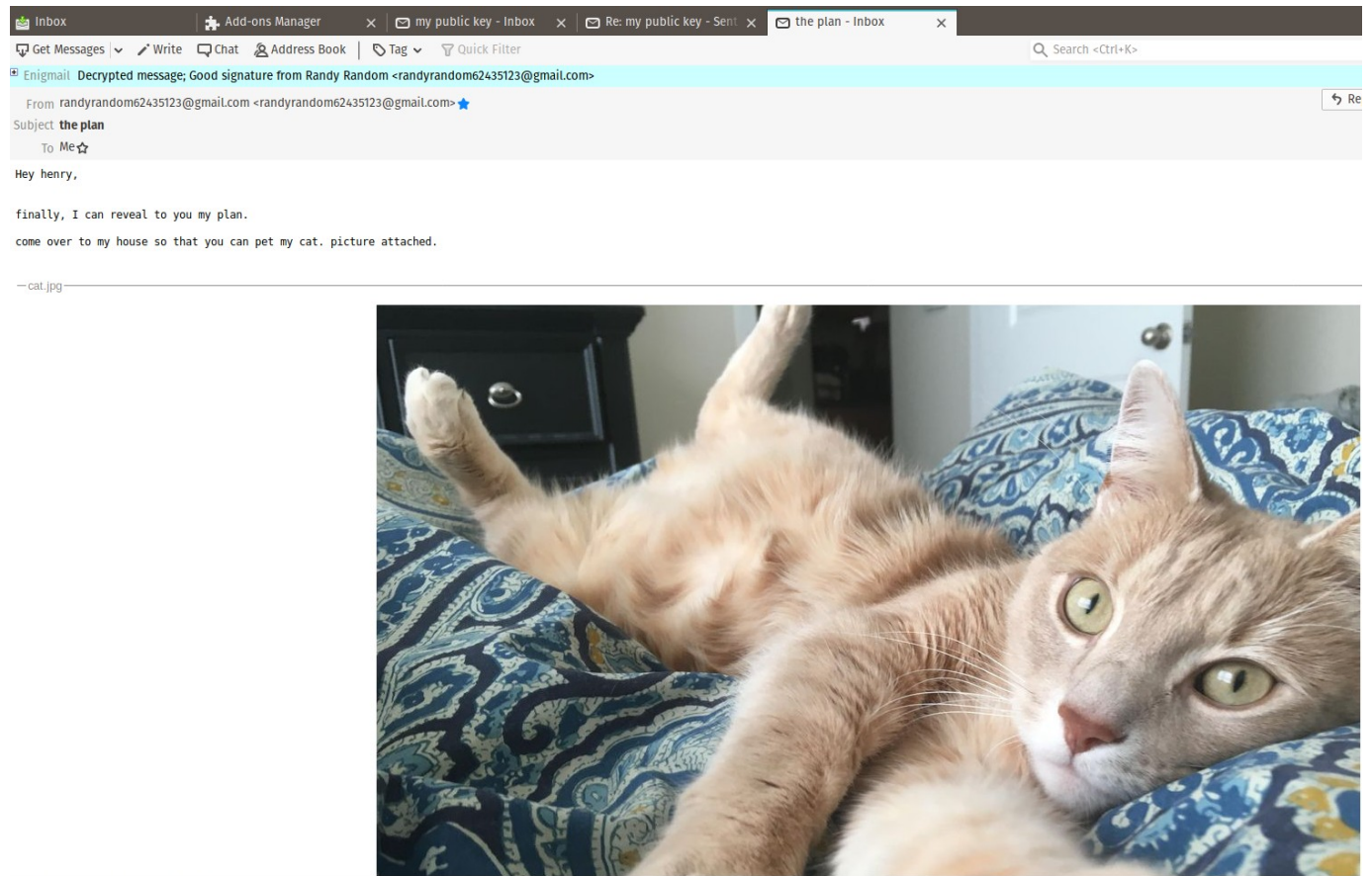


Cryptography Task

ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

Randy sending a secret plan to Henry using Henry's pubkey

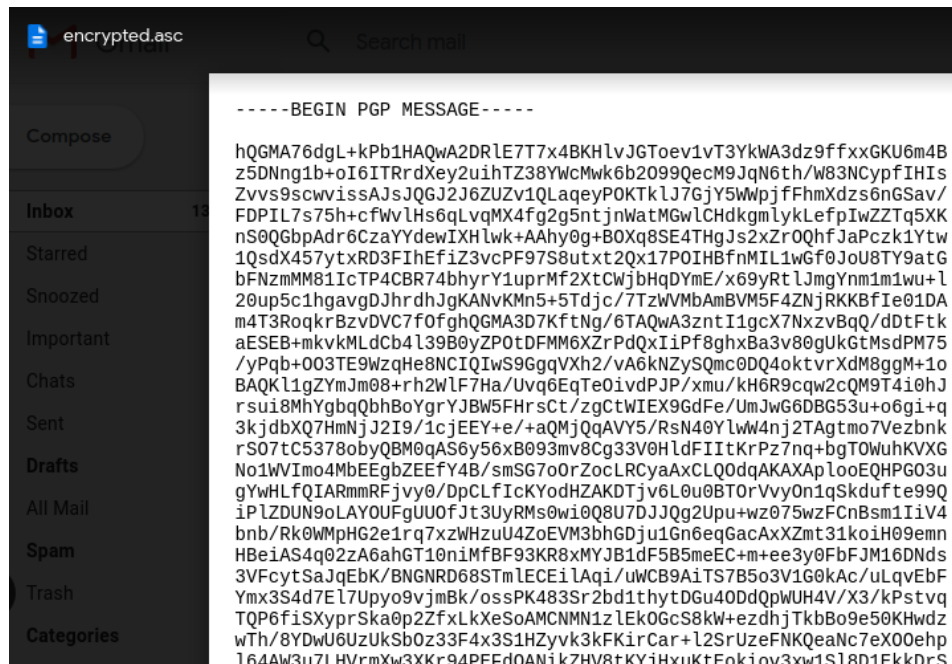
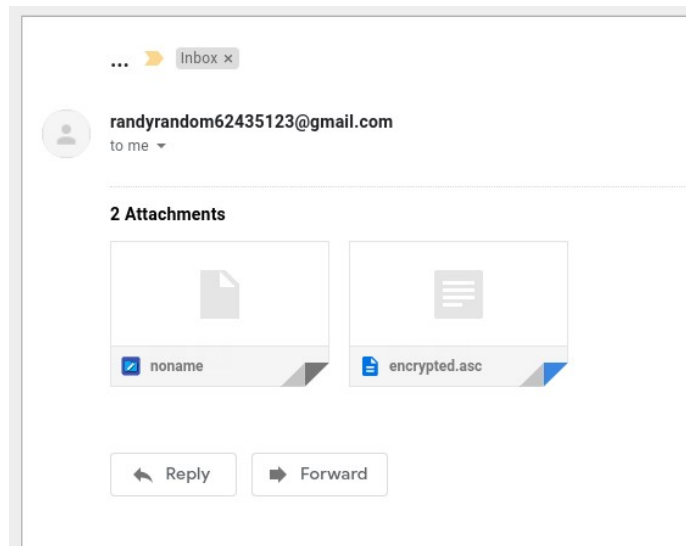


Cryptography Task

ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

The email without decrypting it:



Install and configure TOR (includes performing a search)

Tor log:

```
10/18/19, 02:52:58.852 [NOTICE] DisableNetwork is set. Tor will not make or accept non-control network connections. Shutting down all existing connections.
10/18/19, 02:52:58.852 [NOTICE] DisableNetwork is set. Tor will not make or accept non-control network connections. Shutting down all existing connections.
10/18/19, 02:52:58.852 [NOTICE] DisableNetwork is set. Tor will not make or accept non-control network connections. Shutting down all existing connections.
10/18/19, 02:52:58.852 [NOTICE] Opening Socks listener on 127.0.0.1:9150
10/18/19, 02:52:58.852 [NOTICE] Opened Socks listener on 127.0.0.1:9150
10/18/19, 02:52:58.852 [NOTICE] Renaming old configuration file to "/home/vagrant/Downloads/tor-browser_en-US/Browser/TorBrowser/Data/Tor/torrc.orig.1"
10/18/19, 02:52:59.749 [NOTICE] Bootstrapped 5% (conn): Connecting to a relay
10/18/19, 02:53:00.250 [NOTICE] Bootstrapped 10% (conn_done): Connected to a relay
10/18/19, 02:53:00.580 [NOTICE] Bootstrapped 14% (handshake): Handshaking with a relay
10/18/19, 02:53:00.860 [NOTICE] Bootstrapped 15% (handshake_done): Handshake with a relay done
10/18/19, 02:53:00.861 [NOTICE] Bootstrapped 20% (onehop_create): Establishing an encrypted directory connection
10/18/19, 02:53:01.147 [NOTICE] Bootstrapped 25% (requesting_status): Asking for networkstatus consensus
10/18/19, 02:53:01.431 [NOTICE] Bootstrapped 30% (loading_status): Loading networkstatus consensus
10/18/19, 02:53:03.186 [NOTICE] I learned some more directory information, but not enough to build a circuit: We have no usable consensus.
10/18/19, 02:53:03.475 [NOTICE] Bootstrapped 40% (loading_keys): Loading authority key certs
10/18/19, 02:53:03.820 [NOTICE] The current consensus has no exit nodes. Tor can only build internal paths, such as paths to onion services.
10/18/19, 02:53:03.820 [NOTICE] Bootstrapped 45% (requesting_descriptors): Asking for relay descriptors
10/18/19, 02:53:03.821 [NOTICE] I learned some more directory information, but not enough to build a circuit: We need more microdescriptors: we have 0/5700,
and can only build 0% of likely paths. (We have 0% of guards bw, 0% of midpoint bw, and 0% of end bw (no exits in consensus, using mid) = 0% of path bw.)
10/18/19, 02:53:04.729 [NOTICE] Bootstrapped 50% (loading_descriptors): Loading relay descriptors
10/18/19, 02:53:05.456 [NOTICE] The current consensus contains exit nodes. Tor can build exit and internal paths.
10/18/19, 02:53:06.290 [NOTICE] Bootstrapped 56% (loading_descriptors): Loading relay descriptors
10/18/19, 02:53:07.361 [NOTICE] Bootstrapped 64% (loading_descriptors): Loading relay descriptors
10/18/19, 02:53:07.361 [NOTICE] Bootstrapped 71% (loading_descriptors): Loading relay descriptors
10/18/19, 02:53:07.362 [NOTICE] Bootstrapped 75% (enough_dirinfo): Loaded enough directory info to build circuits
10/18/19, 02:53:07.827 [NOTICE] Bootstrapped 80% (ap_conn): Connecting to a relay to build circuits
10/18/19, 02:53:07.965 [NOTICE] Bootstrapped 85% (ap_conn_done): Connected to a relay to build circuits
10/18/19, 02:53:08.262 [NOTICE] Bootstrapped 89% (ap_handshake): Finishing handshake with a relay to build circuits
10/18/19, 02:53:08.427 [NOTICE] Bootstrapped 90% (ap_handshake_done): Handshake finished with a relay to build circuits
10/18/19, 02:53:08.429 [NOTICE] Bootstrapped 95% (circuit_create): Establishing a Tor circuit
10/18/19, 02:53:09.353 [NOTICE] Bootstrapped 100% (done): Done
10/18/19, 02:53:10.198 [NOTICE] New control connection opened from 127.0.0.1.
10/18/19, 02:53:10.364 [NOTICE] New control connection opened from 127.0.0.1.
```

Cryptography Task

ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

Screenshots of pages

The screenshot shows a Tor Browser window titled "The Hidden Wiki - Tor Browser". The address bar displays "hiddenwiki7wiyzr.onion". The page content includes a welcome message, editor's picks, introduction points, and financial services. A sidebar on the right lists various categories like Editor's picks, Volunteer, Introduction Points, Financial Services, Commercial Services, Domain Services, Anonymity & Security, Blogs / Essays / Wikis, Email / Messaging, Social Networks, Forums / Boards / Chans, Whistleblowing, H/P/A/W/V/C, Hosting, website developing, File Uploaders, Audio - Music / Streams, Video - Movies / TV, Books, Drugs, Erotica, Uncategorized, Non-English, and Finnish / Suomi.

The Hidden Wiki

Main Page [edit]

Welcome to The Hidden Wiki
New hidden wiki url 2019 <http://hiddenwiki7wiyzr.onion> Add it to bookmarks and spread it!!!!

Editor's picks

Pick a random page from the article index and replace one of these slots with it:

1. [Mixabit](#) - Bitcoin mixer
2. [OnionLinks](#) - .Onion link directory.
3. [Bitpharma](#) - Biggest european .onion drug store.
4. [DarkWebHackers](#) - Dark Web Hackers For Hire.
5. [Cardshop](#) - USA CVV KNOWN BALANCE & Worldwide CC & CVV .

Introduction Points

- [DuckDuckGo](#) - A Hidden Service that searches the clearnet.
- [OnionLinks](#) - .Onion link directory.
- [The Hidden Wiki](#) - New Hidden Wiki 2019
- [Another Hidden Wiki](#) - Another hidden wiki like link collection.
- [The Dark Web Pug](#) - Pug's Ultimate Dark Web Guide .

Financial Services

Currencies, banks, money markets, clearing houses, exchangers:

- [AccMarket](#) - Premium Paypal, Ebay and bank accounts.
- [Cardshop](#) - USA CVV KNOWN BALANCE & Worldwide CC & CVV .
- [Dark Mixer](#) - Anonymous bitcoin mixer
- [Mixabit](#) - Bitcoin mixer
- [VirginBitcoin](#) - Buy freshly mined clean bitcoins

Contents [hide]

- 1 Editor's picks
- 2 Volunteer
- 3 Introduction Points
- 4 Financial Services
- 5 Commercial Services
- 6 Domain Services
- 7 Anonymity & Security
- 8 Blogs / Essays / Wikis
- 9 Email / Messaging
- 10 Social Networks
- 11 Forums / Boards / Chans
- 12 Whistleblowing
- 13 H/P/A/W/V/C
- 14 Hosting, website developing
- 15 File Uploaders
- 16 Audio - Music / Streams
- 17 Video - Movies / TV
- 18 Books
- 19 Drugs
- 20 Erotica
 - 20.1 Adult (E)
 - 20.2 Noncommercial (E)
 - 20.3 Commercial (E)
- 21 Uncategorized
- 22 Non-English
 - 22.1 Belarussian
 - 22.2 Finnish / Suomi

Cryptography Task

ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

420prime - Cannabis in dispensary quality from the UK - Tor Browser


Preferences | DuckDuckGo | The Hidden | *** Deep Web | 420prime X | Dark Web | Cardshop | Proxying Bu |

← → ↻ ⓘ primelpds4neewmw.onion ... ☆ 🔒 ⚙

420prime

Products | Login | Registration

420prime - Shipping from United Kingdom



We specialise in legally grown strains of dispensary quality. All our products are imported directly to guarantee you the highest quality from some of the best growers in the world... We reflect this in our prices and believe that ensuring quality of product is far more important than cheap prices. We are professionals, not street dealers, we do our utmost to deliver on our promises on time, every time.

Basically, we love cannabis, and we want everyone to be able to enjoy the finest quality regardless of outdated laws trying to prevent it.

All our packages are shipped safely and discretely using the perfect amount of stealth.

We offer Signed for next day guaranteed delivery by 1pm, or royal mail 1st class (1-3 days). All orders placed before 2pm will be packaged and shipped same day.
Shipping fee is 5 GBP, FREE shipping for orders over 300 GBP.

Product	Price	Quantity
BC Cheese 7g	80 GBP = 0.01259 ₿	<input type="text" value="1"/> X Buy now
BC Cheese 15g	140 GBP = 0.02203 ₿	<input type="text" value="1"/> X Buy now
BC Cheese 30g	220 GBP = 0.03463 ₿	<input type="text" value="1"/> X Buy now
Blue Zkittlez 7g	80 GBP = 0.01259 ₿	<input type="text" value="1"/> X Buy now
Blue Zkittlez 15g	140 GBP = 0.02203 ₿	<input type="text" value="1"/> X Buy now

primelpds4neewmw.onion/index.php

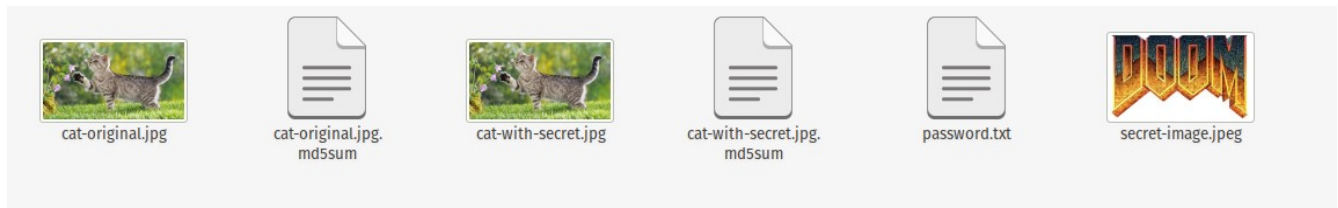
Cryptography Task

ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

Perform a basic steganography encryption

Files:



Embedding a secret image with the password 'doom':

```
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑1 +1...2] -  
> steghide embed -cf cat-with-secret.jpg -p doom -ef secret-image.jpeg  
embedding "secret-image.jpeg" in "cat-with-secret.jpg"... done  
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑1 +1...2] -  
> (base)
```

Comparing file hashes:

```
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑1 +1...2] -  
> md5sum cat-with-secret.jpg > cat-with-secret.jpg.md5sum (base)  
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑1 +1...3] -  
> md5sum cat-original.jpg > cat-original.jpg.md5sum (base)  
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑1 +1...4] -  
> diff *.md5sum (base)  
1c1  
< 805a724aa60d663994046cdb885f4007 cat-original.jpg  
---  
> 4d020fd379161118166250ac8657ff4f cat-with-secret.jpg
```

Cryptography Task

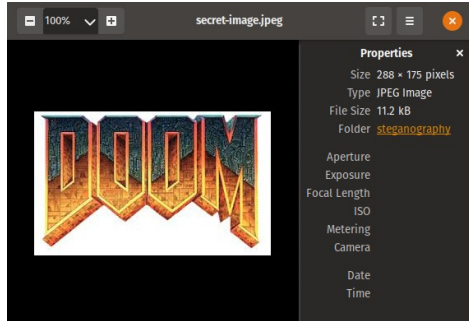
ITMS 448

Henry Post, hpost@hawk.iit.edu, Undergraduate

Extracting the secret file:

```
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑2 +1] -  
> ls (base)  
cat-original.jpg      cat-with-secret.jpg      password.txt  
cat-original.jpg.md5sum  cat-with-secret.jpg.md5sum  secret-image.jpeg  
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑2 +1] -  
> rm secret-image.jpeg (base)  
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑2 +2] -  
> ls secret-image.jpeg (base)  
ls: cannot access 'secret-image.jpeg': No such file or directory  
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑2 +2] -  
> man steghide (base)  
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑2 +2] -  
> steghide extract -sf cat-with-secret.jpg (base)  
Enter passphrase:   
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑2 +2] -  
> steghide extract -sf cat-with-secret.jpg -p doom (base)  
wrote extracted data to "secret-image.jpeg".  
[henryfbp@pop-os] - (/m/h/m/G/s/I/a/c/w/steganography) - [git://master↑2 +1] -  
> xdg-open secret-image.jpeg (base)
```

The secret image:



The image with the secret in it:

