Computer Security 101



A CRASH COURSE

a hackbloc initiative

Who is Hackbloc?

Our mission is to research, create and disseminate information, tools, and tactics that empower people to use technology in a way that is liberating. We support and strengthen our local communities through education and action. We strive to learn from each other and focus our skills toward creative goals, to explore and research positive hacktivism, and to defend a free internet and free society!

staff{at}hackbloc.org

exploit code not people

Setting Up A Security Process

Identify risks + adversaries

Possible Risks:

Possible Adversaries:

Lawsuits
Smear campaigns
Jail time
Job/financial loss
Court orders/censorship
Excommunication
Physical harm
Death

A company
Your boss
The cops
The public
A group of other people
A hell-bent crazy person
The media

It's about information control

Security Theory

- Security = (Time + Effort)/(A's Time + A's Effort)
- Security is insured by technology and trust



Rules of Thumb

- The house only has to win once
- Security always fails
- Security through obscurity isn't
- Defense in-depth
- As good as those who implement it
- Be realistic
- Security favors minimalism
- Use common sense



think for yourself

Security Culture

- Is a set of social standards for protecting a social network from adversaries
- Controls information
- Is a lie
- Is a tool

Individual



only a fool believes their friend is secure

Security Culture Cont

- Do not share people's info without permission (phone # example)
- CC vs BCC on email
- Make a network map!
- Don't leave contact lists laying around, applies to mailing lists too

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Implementing Security Process

- Call out others, yourself
- Lead through example
- Mistakes shouldn't be embarrassing
- Be honest when you make a mistake
- Run audits

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Personal Security

- Make personal security policy
- The higher your risks, the lower your profile should be
- Don't be intimidated by surveillance
- Act as if raid is always coming
- Don't bottle up psychological effects of surveillance

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Choosing Who to Work With

- Do you need to be careful about who you ask?
- Gradually increase risk
- Consider their risk profile
- How to they handle stress? Are they reliable? Do they have an addiction?

•Why do they want to be involved? Will that reason change?

Secure Communications

Be careful what you say over all mediums, especially electronic ones
Check who is listening
Don't use codewords
Chatter & Network Analysis
If they're not involved, they shouldn't be party to your conversation

only a fool believes they are secure

Rumor Control

- Verify stories and statements
- Don't spread information you don't know to be true
- Fight snitch jacketing

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Publishing Anonymously

- Noise signatures, EXIF data
- Compromising formats (PDF, etc)
- Yellow dots
- Where are you publishing from?
- Who are you publishing to?

Dealing with Media

- Plan out what they're going to ask
- Classic infiltration strategy, be wary of requests to meet "direct activists" or be "embedded"
- Research the interviewer, demand credentials
- No reason to use real name or be 100% truthful

Bugs and Eavesdropping

- Audio, laser, electronic, directional mics
- Design of bug tells you intent, ownership
- Bugs need a power source and way to transmit information

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Things to look out for

- Keep log of suspicious activity
- Delayed/opened mail
- Sudden influx of new members
- *Quickly changing attitude/personality/behaviour*
- Show-off/bragging behaviour
 Not all parts of state are working against you in synchronized fashion

Preventing Infiltration

- Get to know members personally
- Make cover stories expensive
- Infiltrators vs paid informants
- Not only militant groups targeted
- Inexperience doesn't = snitch
- Don't generate paranoia culture

Do you have an infiltrator?

- Campaign problems, moves anticipated
- Opponent's history/resources
- Inconsistent stories
- Attempts to get information
- Internal disruption

Gathering evidence

- Talk to a lawyer
- Do damage control
- Keep notes
- Probe suspect + check references
- Consider surveillance + searches
- Setup opportunities for selfincrimination

Final Steps

- Pics or it didn't happen
- Present the accusation w/ evidence
- Keep end goal in mind
- Who needs to know?
- Discuss incident w/ group
- Stress people not become paranoid
 Revise security policies

Post-Action Analysis

- Look for separation/special treatment
- Look for police citing specific evidence
- Make arrest policy clear
- Support arrestees as security culture





Long Haul 2008

The Long Haul Infoshop, a community center/library in Berkeley was raided by the FBI and local police. Over a dozen computers were seized in addition to check-out logs because a threatening email was supposedly sent from there.

Wikileaks 2008

Had domain name shut down by a federal judge for leaking documents detailing tax evasion in the Cayman Islands by major US political celebrities. Injunction lifted after much protest

New York Times Aug 8, 2008

"WASHINGTON – The Federal Bureau of Investigation said Friday that it has improperly obtained the phone records of reporters for the New York Times and Washington Post in the Newspapers' Indonesia Bureaus in 2004."

An initial report by the inspector general found that the FBI had violated its own policies in tens of thousands of cases

Josh Wolf 2006

Wolf served 226 days in prison at the Dublin FCI (California) for refusing to divulge source material. This made him the longest-imprisoned journalists for refusing to do so in US history.

FBI Raids Indymedia

On October 7, 2004 the FBI seized the servers used by a number of IMCs and hosted by US-based Rackspace Managed Hosting. Indymedia was not notified prior to the raid and over 50 websites were taken offline as a result.

Echelon, Carnivore







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Nothing to see here

Identity

- What you are known as
- Complex
- Often un-authenticated
- Anonymity v pseudonymity



Keeping an Eye on Your Data

- Who wants access to your information? Why?
- Who do you want to have access? Why?
- Think about cops, private investigators, marketers, creeps, and others



Nothing to see here



Anti-Malware Software

- How it works
- Who needs it?
- AVG Free Edition
- Malwarebytes Anti-Malware
- Not worth paying for

Secure File Deletion

- Delete vs Wipe
- Eraser, srm/wipe, OS X ctrl-click
- Will not clear swap, logs, filesystem data, temp files, etc
- DBAN for entire drive
- Recovering after wiping?
- Avoid wiping by encrypting first!

General Warning on Phones

- Security Patches
- Backdoors and closed-source
- Monitoring by telcos, location info
- Some security > none

What is Signal?

- Developed by Whisper Systems
- Encrypts texts in transit
- Supports media texts
- Saves you if on limited text plan
- Android + iOS
- Encrypted phone calls

What does it not protect against?

- Somebody knowing who you're talking to
- People without signal
- Phone seizure

What is Tor?

- Originally developed by the Navy
- High degree of anonymity
- For web and other traffic
- Allows hosting of hidden services



TorProject.org

Tor's Protections

- Protects you from people knowing who you communicate with or what you say to them
- Provides online anonymity
- Protects you from filtering



TorProject.org

Tor's Weaknesses

TorProject.org

- Physical seizure
- Misplaced trust in hardware/software
- Global adversary/node timing
- Insecure physical surroundings
- User error/writing analysis
- External files


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relationships, and state security known as traffic analysis

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Congratulations. Your browser is configured to use Tor.

Please refer to the Tor website for further information about using Tor safely. You are now free to browse the Internet anonymously.

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Your IP address appears to be: 77.247.181.162

This page is also available in the following languages:

لمريب (Arabiya) Burmese česky dansk Deutsch Ελληνικά (Ellinika) English español Estonian المرسية (Fārsī) suomi français Italiano <u>日本語 (Nhonqo)</u> norsk (bokmāl) Nederlands polski Português Português do Brasil română Pycczzző (Russkij) <u>Thai</u> Türkçe yzpaïzczza (ukrajins'ka) Vietnamese 中文(所)



Transferring data from www.yceml.net...

Encrypting Online Chat

• We will use Pidgin + Off-The-Record

nideiq

- Similar weaknesses to Tor
- Private key compromise only compromises most recent conversation
- Only works for 1-on-1
 conversations

Pidgin+OTR Protections

 Protects you from people knowing what you're saying

- Protects you by authenticating who you're talking to
- Does not protect you from people knowing who you are talking to

idein

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🚳 Authenticate Buddy



Authenticate workshoptest3

Authenticating a buddy helps ensure that the person you are talking to is who he or she claims to be.

How would you like to authenticate your buddy?

Question and answer

To authenticate using a question, pick a question whose answer is known only to you and your buddy. Enter this question and this answer, then wait for your buddy to enter the answer too. If the answers don't match, then you may be talking to an imposter.

Enter question here:

What is your gmail address?

Enter secret answer here (case sensitive):

supersecretemail@gmail.com

Help

Cancel

Authenticate

¥

Authenticate Buddy



Authentication from workshoptest2

Authenticating a buddy helps ensure that the person you are talking to is who he or she claims to be.

Your buddy is attempting to determine if he or she is really talking to you, or if it's someone pretending to be you. Your buddy has asked a guestion, indicated below. To authenticate to your buddy, enter the answer and click OK.

This is the question asked by your buddy: What is your gmail address?

Enter secret answer here (case sensitive): supersecretemail@gmail.com

Help

Cancel

Authenticate







Introducing...Cryptocat

- Protects you from people knowing what you're saying or who you're talking to (but not who you are)
- Cross-platform
- No installation/configuration required
- Available as a Tor hidden service
- Malicious server weakness





Aw fiddlesticks!

This video can't be played with your current setup. Please switch to a browser that provides native H 264 support.

https://crypto.cat/



alternative to invasive services for talking with friends and family.

Nonprofits



Nonprofit organizations regularly require private ommunications but often deal with narties that



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What is Encryption Anyways?

- A way of encoding information
- Makes eavesdropping much more difficult
- Generally prevents your adversary from knowing what you're saying but not who you're saying it to.



Nothing to see here
Examples of Encryption

- Code Words
- Caesar Cipher (Shared key)
- WWII Enigma Machines
- HTTPS/SSL (Public Key)
- PGP (Public Key)



Nothing to see here

Caesar Cipher

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Example: Shift up to encrypt Shift down to decrypt Shared secret system

Nothing to see here

What Does it Protect Me From?

- Seizure of information
- Interception of communications
- Un-authenticated communications
- Is not foolproof and is always better to not store the information in the first place!



Nothing to see here

So what does it look like?



TrueCrypt & VeraCrypt

- Makes encrypted "volumes" from files and drives.
- Transparent & plausibly deniable
- Open source & crossplatform
- Offers full disk encryption (Windows), "hidden volumes"



way better than FalseCrypt

Does Not Protect Against

- Misplaced trust
- Evil maid attacks
- User error
- Swap/cold boot attacks
- Rubber-hose attack



way better than FalseCrypt

"Full-disk Encryption"

Immune to swap/recovery attacks
Overall much more secure
Slightly slower than folder encryption



way better than FalseCrypt

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• 2009-11-23 TrueCrypt 6.3a Released	• Encrypts an ent	ire partition or	storage device s	uch as USB flash d	Irive or hard driv	э,				
[News Archive]	 Encrypts a part 	ition or drive v	vhere Windows is	installed (pre-bo	ot authentication)					
	• Encryption is au	tomatic, real-t	i me (on-the-fly) and	transparent.						*
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100										
		_	_		_		_	_		_



😰 TrueCrypt Setup 7.1a

Wizard Mode

Select one of the modes. If you are not sure which to select, use the default mode.

Install

Select this option if you want to install TrueCrypt on this system.

C Extract

If you select this option, all files will be extracted from this package but nothing will be installed on the system. Do not select it if you intend to encrypt the system partition or system drive. Selecting this option can be useful, for example, if you want to run TrueCrypt in so-called portable mode. TrueCrypt does not have to be installed on the operating system under which it is run. After all files are extracted, you can directly run the extracted file 'TrueCrypt.exe' (then TrueCrypt will run in portable mode).

TrueCrypt Installer			\searrow	
	Help	< Back	Next >	Cancel

₽ TrueCrypt Setup 7.1a	
Setup Options Here you can set various options to control the installation	process.
Please select or type the location where you want to in: specified folder does not exist, it will be automatically cr	stall the TrueCrypt program files. If the
C:\Program Files\TrueCrypt\	Browse
🔽 Install for all users	
🔽 Add TrueCrypt to Start menu	
Add TrueCrypt icon to desktop	
🔽 Associate the .tc file extension with TrueCrypt	
Create System Restore point	\searrow
TrueCrypt Installer	< Back Install Cancel

TrueCrypt	
Volumes System Favorites Tools Settings Help	Homepage
Drive Volume Size Encryption algorithm	n Type 🔺
· · · · · · · · · · · · · · · · · · ·	=
Second Secon	
✓ M:	
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Q:	
Create Volume N Volume Properties W	ipe Cache
	lect File
✓	
Volume Tools Sele	ct Device
Mount Auto-Mount Devices Dismount All	Exit





TrueCrypt Volume Creation Wizard

Create an encrypted file container

Creates a virtual encrypted disk within a file. Recommended for inexperienced users.

More information

C Encrypt a non-system partition/drive

Encrypts a non-system partition on any internal or external drive (e.g. a flash drive). Optionally, creates a hidden volume.

C Encrypt the system partition or entire system drive

Encrypts the partition/drive where Windows is installed. Anyone who wants to gain access and use the system, read and write files, etc., will need to enter the correct password each time before Windows boots. Optionally, creates a hidden system.

More information about system encryption

< Back



Cancel





Volume Type

Standard TrueCrypt volume

Select this option if you want to create a normal TrueCrypt volume.

Hidden TrueCrypt volume

It may happen that you are forced by somebody to reveal the password to an encrypted volume. There are many situations where you cannot refuse to reveal the password (for example, due to extortion). Using a so-called hidden volume allows you to solve such situations without revealing the password to your volume.

More information about hidden volumes



< Back

Nex

Cancel



Cancel

Select File...



Volume Location

Never save history

Help

A TrueCrypt volume can reside in a file (called TrueCrypt container), which can reside on a hard disk, on a USB flash drive, etc. A TrueCrypt container is just like any normal file (it can be, for example, moved or deleted as any normal file). Click 'Select File' to choose a filename for the container and to select the location where you wish the container to be created.

WARNING: If you select an existing file, TrueCrypt will NOT encrypt it; the file will be deleted and replaced with the newly created TrueCrypt container. You will be able to encrypt existing files (later on) by moving them to the TrueCrypt container that you are about to create now.

< Back

Next >

Save in:	🔁 user		-	+ 🗈 📸 📰 -	
My Recent Documents Desktop My Documents	 .kde .tilemill AppData Desktop Documents Favorites My Documents Start Menu UserData tilemill 				
My Computer	File name:	encrypted.file			Save



Volume Location

C:\Documents and Settings\user\Deskto 🔽



Cancel

🔽 Never save history

Help

A TrueCrypt volume can reside in a file (called TrueCrypt container), which can reside on a hard disk, on a USB flash drive, etc. A TrueCrypt container is just like any normal file (it can be, for example, moved or deleted as any normal file). Click 'Select File' to choose a filename for the container and to select the location where you wish the container to be created.

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< Back

Next >

Specify Path ar	nd File Name				? 🛛
Save in:	🗀 user		•	+ 🗈 💣 🖩	-
My Recent Documents Desktop My Documents My Computer	 ikde itilemill AppData Desktop Documents Favorites My Documents Start Menu UserData tilemill 				
My Network Places	File name: Save as type:	encrypted.file All Files (*.*)		•	Save Cancel



	Encryption Algorithm
S U E G B Y	AES Test FIPS-approved cipher (Rijndael, published in 1998) that may be used by U.S. government departments and agencies to protect classified information up to the Top Secret level. 256-bit key, 128-bit block, 14 rounds (AES-256). Mode of operation is XTS. More information on AES Benchmark
	RIPEMD-160 Information on hash algorithms Help < Back Nei > Cancel





Volume Size 100 .€ MB C KB C GB Free space on drive C:\ is 9.98 GB Please specify the size of the container you want to create. If you create a dynamic (sparse-file) container, this parameter will specify its maximum possible size. Note that the minimum possible size of a FAT volume is 292 KB. The minimum possible size of an NTFS volume is 3792 KB.







Volume Password

Password:	****	
Confirm:	****	
	🗌 Use keyfiles 🔲 Display password	Keyfiles

It is very important that you choose a good password. You should avoid choosing one that contains only a single word that can be found in a dictionary (or a combination of 2, 3, or 4 such words). It should not contain any names or dates of birth. It should not be easy to guess. A good password is a random combination of upper and lower case letters, numbers, and special characters, such as @ $^ =$ \$ * + etc. We recommend choosing a password consisting of more than 20 characters (the longer, the better). The maximum possible length is 64 characters.

Help

< Back

Next >

>

Cancel



IMPORTANT: Move your mouse as randomly as possible within this window. The longer you move it, the better. This significantly increases the cryptographic strength of the encryption keys. Then click Format to create the volume.

Help	< Back	Format	Cancel

пиестурі							
Volumes System Favorit	es Tools Sett	ings Help				Home	page
Drive Volume I: I: I:			Size	Encryption a	lgorithm	Туре	
Q: R: S: Create Volume]	Volume Pro	perties		Wipe C	Iache	

Look in: Desktop My Bocent Documents My Network Places Mozilla Firefox Mozilla Thunderbird OpenOffice.org 3.2 TrueCrypt Secret Secret.txt Ny Network File name: Penrypted Image: Penrypted Image	Select a TrueC	rypt Volume			? 🛛
My Becent Documents Mozilla Firefox Mozilla Thunderbird OpenOffice.org 3.2 TrueCrypt Secret Secret.txt Ny Computer File name: encrypted Open Open	Look in:	Desktop	•	+ 🖩 🐣 📰 +	
My Network File name: encrypted Open	My Recent Documents Desktop My Documents My Computer	 My Documents My Computer My Network Places Mozilla Firefox Mozilla Thunderbird OpenOffice.org 3.2 TrueCrypt encrypted file secret secret to a secret to a secret.txt 			
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Volumes System Fa	avorites Tools Se	ttings Help			Hor	mepage
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Create Volume Volume C:\Do ✓ Ne Mount	Documents and Settin over save history Auto-Mou	Volume P gs\user\Deskt nt Devices	roperties cop\encrypted.file Volume Too Dismou	e 🔹	Wipe Cache Select File Select Device	





TrueCrypt							
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Drive Volume			Size	Encryption al	gorithm	Туре	~
F: C:\Documents an	nd Settings\use\	encrypted.file	99 MB	AES		Normal	
G:							
₩ WI:				N			
○];				6			=
<u>ФМ:</u>							
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TrueCrypt Volume Creation Wizard

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Encrypt a non-system partition/drive

Encrypts a non-system partition on any internal or external drive (e.g. a flash drive). Optionally, creates a hidden volume.

Encrypt the system partition or entire system drive

Encrypts the partition/drives where Windows is installed. Anyone who wants to gain access and use the system, read and write files, etc., will need to enter the correct password each time before Windows boots. Optionally, creates a hidden system.

More information about system encryption







Type of System Encryption

• Normal

Select this option if you merely want to encrypt the system partition or the entire system drive.

Hidden

It may happen that you are forced by somebody to decrypt the operating system. There are many situations where you cannot refuse to do so (for example, due to extortion). If you select this option, you will create a hidden operating system whose existence should be impossible to prove (provided that certain guidelines are followed). Thus, you will not have to decrypt or reveal the password to the hidden operating system. For a detailed explanation, please click the link below.

More information





Cancel

Area to Encrypt

C Encrypt the Windows system partition

Select this option to encrypt the partition where the currently running Windows operating system is installed.

Encrypt the whole drive

Help

Select this option if you want to encrypt the entire drive on which the currently running Windows system is installed. The whole drive, including all its partitions, will be encrypted except the first track where the TrueCrypt Boot Loader will reside. Anyone who wants to access a system installed on the drive, or files stored on the drive, will need to enter the correct password each time before the system starts. This option cannot be used to encrypt a secondary or external drive if Windows is not installed on it and does not boot from it.

Next >

< Back



Cancel



Encryption of Host Protected Area

- C Yes
- No

At the end of many drives, there is an area that is normally hidden from the operating system (such areas are usually referred to as Host Protected Areas). However, some programs can read and write data from/to such areas.

WARNING: Some computer manufacturers may use such areas to store tools and data for RAID, system recovery, system setup, diagnostic, or other purposes. If such tools or data must be accessible before booting, the hidden area should NOT be encrypted (choose 'No' above).

Do you want TrueCrypt to detect and encrypt such a hidden area (if any) at the end of the system drive?

Next >

< Back

Help



Cancel



Number of Operating Systems

Single-boot

Select this option if there is only one operating system installed on this computer (even if it has multiple users).

Multi-boot

Select this option if there are two or more operating systems installed on this computer.

< Back

Next >

For example:

- Windows XP and Windows XP
- Windows XP and Windows Vista
- Windows and Mac OS X
- Windows and Linux

Help

- Windows, Linux and Mac OS X





Rescue Disk

Help

Before you can encrypt the partition/drive, you must create a TrueCrypt Rescue Disk (TRD), which serves the following purposes:

- If the TrueCrypt Boot Loader, master key, or other critical data gets damaged, the TRD allows you to restore it (note, however, that you will still have to enter the correct password then).

- If Windows gets damaged and cannot start, the TRD allows you to permanently decrypt the partition/drive before Windows starts.

- The TRD will contain a backup of the present content of the first drive track (which typically contains a system loader or boot manager) and will allow you to restore it if necessary.

The TrueCrypt Rescue Disk ISO image will be created in the location specified below.

< Back

C:\Documents and Settings\user\Desktop\rescue

Browse...

Ne > Cancel





Rescue Disk Recording

The Rescue Disk image has been created and stored in this file: C:\Documents and Settings\user\Desktop\rescuedisk

Now you need to burn it to a CD or DVD.

IMPORTANT: Note that the file must be written to the CD/DVD as an ISO disk image (not as an individual file). For information on how to do so, please refer to the documentation of your CD/DVD recording software. If you do not have any CD/DVD recording software that can write the ISO disk image to a CD/DVD, click the link below to download such free software.

After you burn the Rescue Disk, click Next to verify that it has been correctly burned.

Download CD/DVD recording software





Cancel



Rescue Disk Verified

The TrueCrypt Rescue Disk has been successfully verified. Please remove it from the drive now and store it in a safe place.

< Back

Next>

Click Next to continue.

Help




Wipe Mode

Wipe mode: None (fastest)

On some types of storage media, when data is overwritten with other data, it may be possible to recover the overwritten data using techniques such as magnetic force microscopy. This also applies to data that are overwritten with their encrypted form (which happens when TrueCrypt initially encrypts an unencrypted partition or drive). According to some studies and governmental publications, recovery o_{λ} overwritten data can be prevented (or made very difficult) by overwritting the data with pseudorandom and certain non-random data a certain number of times. Therefore, if you believe that an adversary might be able to use such techniques to recover the data you intend encrypt, you may want to select one of the wipe modes. (existing data will NOT be lost). Note that wiping will NOT be performed after the partition/drive is encrypted. When the partition/drive is fully encrypted, no unencrypted data is written to it. Any data being written to it is first encrypted on the fly in memory and only then is the (encrypted) data written to the disk.

Help

< Back

Next >



Cancel



System Encryption Pretest

Before encrypting your system partition or drive, TrueCrypt needs to verify that everything works correctly.

After you click Test, all the necessary components (for example, the pre-boot authentication component, i.e. the TrueCrypt Boot Loader) will be installed and your computer will be restarted. Then you will have to enter your password in the TrueCrypt Boot Loader screen that will appear before Windows starts. After Windows starts, you will be automatically informed about the result of this pretest.

The following device will be modified: Drive #0

Help

If you click Cancel now, nothing will be installed and the pretest will not be performed.

< Back

Test





Pretest Completed

The pretest has been successfully completed.

WARNING: Please note that if power supply is suddenly interrupted while encrypting existing data in place, or when the operating system crashes due to a software error or hardware malfunction while TrueCrypt is encrypting existing data in place, portions of the data will be corrupted or lost. Therefore, before you stark encrypting, please make sure that you have backup copies of the files you want to encrypt. If you do not, please back up the files now (you can click Defer, back up the files, then run TrueCrypt again anytime, and select 'System' > 'Resume Interrupted Process' to start encrypting).

When ready, click Encrypt to start encrypting.

Help < Back Encrypt Defer



ncryption	
Wipe mode: None (fastest)	Y
	Pause
Done 0.123% Status Encrypting	Left 54 minutes

You can click Pause or Defer anytime to interrupt the process of encryption or decryption, exit this wizard, restart or shut down your computer, and then resume the process, which will continue from the point it was stopped. To prevent slowdown when the system or applications write or read data from the system drive, TrueCrypt automatically waits until the data is written or read (see Status above) and then automatically continues encrypting or decrypting.

More information



PGP Email Encryption

- Cross-platform
- Works best with email clients
- Lots of moving parts
- Long-standing, open-source solution
- Can encrypt emails and files

GnuPG

Protects Against

Unauthenticated conversations
Adversary knowing what you are saying (body & attachment)
Seizure from your computer or on the wire



Does Not Protect Against

- Adversary knowing who you are/are talking to
- Misplaced trust
- User error
- Swap/cold boot attacks
- Rubber-hose attack

GnuPG



http://commons.wikimedia.org/wiki/File:Public_key_encryption_email.svg

Choosing a Secure Passphrase

- Unique
- Letters, numbers, special characters
- It's a phrase, not a word
- Th1s 1s n0t s3cur3

GnuPG

Mozilla Thunderbird - Mozilla Firefox File Edit Yiew History Bookmarks Tools Help Mozilla Thunderbird + (<) ()</td> Mozilla.org/en-U5/thunderbird/



Software made to make email easier.

Thunderbird is a free email application that's easy to set up and customize - and it's loaded with great features!



Release Notes - Other Systems & Languages



Features | Add-Ons | Support | Community | Organizations | About

Privacy Policy | Legal Notices

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Welcome to the Mozilla Thunderbird Setup Wizard

This wizard will guide you through the installation of Mozilla Thunderbird.

It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.

Click Next to continue.



Setup Type

Choose setup options

Choose the type of setup you prefer, then click Next.

💿 Standard

Thunderbird will be installed with the most common options.

O Custom

You may choose individual options to be installed. Recommended for experienced users.

Use Thunderbird as my default mail application

< Back Next >





Summary

Ready to start installing Thunderbird

Thunderbird will be installed to the following location:

C:\Program Files\Mozilla Thunderbird

Thunderbird will be set as your default mail application.

Click Install to continue.









Cancel



Completing the Mozilla Thunderbird Setup Wizard

Mozilla Thunderbird has been installed on your computer. Click Finish to close this wizard.

🗹 Launch Mozilla Thunderbird now



Mail Account Setup

Your <u>n</u> ame:	Super Mc. Secret	Your name, as shown to others	
Emai <u>l</u> address:	hackblocworkshop@gmai		
<u>P</u> assword:	•••••		<u> </u>
	☑ Re <u>m</u> ember password		
		<u>Continue</u> C <u>a</u> ncel	

X

Mail Account Setup

Your <u>n</u> ame:	Super Mc. Secret	Your name, as shown to others
Email address:	hackblocworkshop@gmai	
Password:	•••••	
	Remember password	
Configuration	found in Mozilla ISP database	3
IMAP (re	mote folders) 🔿 POP3 (k	eep mail on your computer)
Incoming:	IMAP, imap.googlemail.com,	SSL
Outgoing:	SMTP, smtp.googlemail.com,	SSL 🗟
Username:	hackblocworkshop@gmail.co	m
Manual config	2	<u>C</u>reate Account Cancel

×





Gpg4win - a secure solution...

... for file and email encryption. Gpg4win (GNU Privacy Guard for Windows) is Free Software and can be installed with just a few mouse clicks.

Discover Gva4win

Getting started

Join the community

- 7 🛛 🖉 Gpg4win - Download Gpg4win - Mozilla Firefox File Edit View History Bookmarks Tools Help + 🔒 Gpg4win - Download Gpg4win Soogle ☆vC 0 qpq4win.orq/download.html + ۸ • README Gpg4win 2.1.0 contains: Gpg4win 2.1.0 GnuPG 2.0.17 Kleopatra 2.1.0 (2011-02-04) GPA 0.9.1-svn1024 You can download the full version (including the Gpg4win compendium) of Gpg4win 2.1.0 here: GpgOL 1.1.2 GpgEX 0.9.7 Gpg4win 2.1.0 Claws Mail 3.7.8cvs47 Kompendium (de) 3.0.0 (h) Compendium (en) 3.0.0-beta1 OpenPGP signatur (for gpg4win-2.1.0.exe) SHA1 checksum (for gpg4win-2.1.0.exe): f619313cb42241d6837d20d24a814b81a1fe7f6d gpg4win-2.1.0.exe Change History Sources and other Gpg4win-2.1.0 variants: · Full version but without Kleopatra and manuals: Gpg4win-Light 2.1.0 OpenPGP signatur (for gpg4win-light-2.1.0.exe) gpg4win-2.1.0.tar.bz2 (source code package); size: 5 MByte

http://files.gpg4win.org/gpg4win-2.1.0.exe

• All versions and OpenPGP signatures: files.gpg4win.org.

🕒 Gpg4win Setup





Choose Components

Choose which features of Gpg4win you want to install.

Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.

Select components to install:

Space required: 104.7MB



Nullsoft Install System v2.46-2 -



🕒 Gpg4win Setup





Define trustable root certificates

S/MIME configuration

Gpg4win needs a list of root certificates which you trust.

To avoid that each user must search and install the required root certificates, and also check and authenticate the trustworthiness of the same, it is useful to install a system-wide default of the most important root certificates:

1. Store the root certificates

Copy root certificate file to:

Therewith you can use S/MIME, the configuration is stringently required. Skip this configuration only if you don't want to use S/MIME.

Root certificate defined or skip configuration
Nullsoft Install System v2.46-2
Cancel

3 Inbox - Mozilla Thunderbird							
<u>File E</u> dit <u>V</u> iew <u>G</u> o <u>M</u> essage	Tools Help						
🚔 Inbox	Address <u>B</u> ook	Ctrl+Shift+B					~
실 Get Mail 🔹 📝 Write 🔲 Add	Saved Files Add-ons	Ctrl+J		Search <ctrl+k></ctrl+k>			P
lindox (3)	Stest Pilot Activity Manager	•	l 🔒 Contact 🚫 Tags 🖉 Attachment		Filter these messages	<ctrl+shift+k></ctrl+shift+k>	P
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 Would you like to help improve Moz 	illa Thunderbird by automat	ically reporting m	emory usage, performance, and responsiveness to Mozilla?	Learn More		Yes	No x
						Uprear	d: 3 Total: 3

dit <u>V</u> iew <u>G</u> o <u>M</u> essage	<u>I</u> ools <u>H</u> elp		
x	Add-ons Manager ×		
>		enigmail	
		Name Last Updated	Best match
Search	Search: My Add-ons Available Add-ons		
•	Enigmail 1.4.1	Frida	ay, April 20, 201
Get Add-ons	OpenPGP message encryption and authentication for Thunderbird and SeaMonkey. More		Install
	iLeopard Mail 3.2.6	Monday,	Augus Install th
Extensions	It is a Theme of the Mac Leopard-style which did iLeopard in a model. More		Install
Appearance	Display mailing list header 0.3.2	Saturda	ay, April 21, 200
	This extension implements RFC 2369 for Thunderbird: Special mailing list header fields in the mail are parsed, and the links ar	re displayed in the extended header view. You can click th More	Install
Plugins	Leopard Mail-Default-Graphite 3.2.6	Monday,	August 02, 201
	This theme is the skin which can change your Thunderbird like LeopardMail. More		Install
	👝 Leopard Mail-Default-Aqua 3.2.6	Monday,	August 02, 201
	This theme is the skin which can change your Thunderbird like LeopardMail. More		Install
	Newsgroup Links 0.1.1	Monday	, March 05, 200
	Displays a link to the Google groups url of a newsgroup post, and an option to copy it. More		Install
d you like to belo improve Moz	illa Thunderbird by automatically reporting memory usage, performance, and responsiveness to Mozilla? Learn More	Yes	No

nager - Mozilla Thun	derbird	
v <u>G</u> o <u>M</u> essage <u>T</u> ool:		
	Add-ons Manager ×	
	🗱 - enigmail	
	Name Las	t Updated Best match
rch	Search: My Add-ons Available Add-ons	
: Add-ons	Enigmail will be installed after you restart Thunderbird. Restart now Enigmail 1.4.1 OpenPGP message encryption and authentication More	Friday, May 25, 2012
ensions	It is a Theme of the Mac Leopard-style which did iLeopard in a model. More	Monday, August 02, 2010
ins	Display mailing list header 0.3.2 This extension implements RFC 2369 for Thunderbird: Special mailing list header fields in the mail are parsed, and the links are displayed in the extended header view. You can click the	Saturday, April 21, 2007 1 <u>More</u> Install
	Leopard Mail-Default-Graphite 3.2.6 This theme is the skin which can change your Thunderbird like LeopardMail. More	Monday, August 02, 2010
	Leopard Mail-Default-Aqua 3.2.6 This theme is the skin which can change your Thunderbird like LeopardMail. More	Monday, August 02, 2010
	Newsgroup Links 0.1.1 Displays a link to the Google groups url of a newsgroup post, and an option to copy it. More	Monday, March 05, 2003

ocworkshop@gmail.com is up to date





Welcome to the OpenPGP Setup Wizard

This wizard helps you to start using OpenPGP right away. Over the next few screens we'll ask you some questions to get everything setup.

To keep everything simple, we make some assumptions about configuration. These assumptions try to provide a high level of security for the average user without creating confusion. Of course, you can change all of these settings after you finish the wizard. You can find out more about the OpenPGP features in the Help menu or on the <u>Enigmail website</u>.

If you have any trouble using this wizard, please let us know by <u>emailing us</u>.

This wizard is automatically invoked when you first install Enigmail. You can also launch it manually from the OpenPGP menu.

Thank you for choosing Enigmail OpenPGP!

Would you like to use the wizard now?

Yes, I would like the wizard to get me started

🔘 No, thanks. I prefer to configure things manually



Next



Encryption

Encrypt Your Outgoing Emails



OpenPGP allows you to encrypt your email messages and any attachments. Encryption is like putting a letter in an envelope. It makes things private. It's not just for "secret" messages, but for everything that you would not send on a postcard.

On a technical level, encryption works like a padlock that only the recipient has the key for. Unlike signing, to use encryption all the recipients of an email need to use OpenPGP. People need to give you their public key before you can send them encrypted email (the public key is the pad lock we were talking about).

Unless most of your communication partners have public keys, you should not enable encryption by default.

Shall your outgoing email be encrypted by default?

🔘 Yes, I have public keys for most of my contacts

No, I will create per-recipient rules for those that sent me their public key.



Preferences

Change Your Email Settings To Make OpenPGP Work More Reliably

This wizard can change your email settings to make sure there are no problems with signing and encrypting email on your machine. These setting changes are mostly technical stuff you will not notice, though one important thing is that email will be composed in plain text by default.

Do you want to change a few default settings to make OpenPGP work better on your machine?



🔘 No, thanks





Next >

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No OpenPGP Key Found

We could not find any OpenPGP Key



- I want to create a new key pair for signing and encrypting my email.
- O I have existing public and private keys that I would like to import



Next >

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Summary

Confirm that the wizard shall now commit these changes

You are almost complete! If you click on the 'Next' button, the wizard will perform the following actions:

- Create a new 2048-bit OpenPGP key, valid for 5 years
- Activate OpenPGP for your email account
- Do not sign emails by default
- Do not encrypt emails by default
- Adjust all recommended application settings

0	Key generation completed! Identity <hackblocworkshop@gmail.com> will be used for signing. We highly recommend to create a revocation certificate for your key. This certificate can be used to invalidate your key, e.g. in case your secret key gets lost or compromised. Do you want to create such a revocation certificate now?</hackblocworkshop@gmail.com>



Summary

Confirm that the wizard shall now commit these changes

You are almost complete! If you click on the 'Next' button, the wizard will perform the following actions:

- Use the existing OpenPGP key ID 0E8FED00B375E606 for signing
- Activate OpenPGP for your email account
- Do not sign emails by default
- Do not encrypt emails by default
- Adjust all recommended application settings





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Additional Tools of Interest

- Etherpad
- SpiderOak, BTSync
- Privnote
- HackThisZine
- Linux + LUKS Encryption
- Mega.co.nz
- VPN and Proxy services