

How to enable email encryption on Microsoft Outlook email client

PGP, also known as Pretty Good Privacy <u>https://en.wikipedia.org/wiki/Pretty_Good_Privacy</u> is a 27 years old encryption algorithm.

The system is simple. A user have 2 keys (like 2 passwords): a public key that is used to encrypt things and a private key that is used to decrypt things. So, if a user gives away his public key to anyone, then anyone can encrypt things sent to that user. The user, keeping hidden his private key and using it, is the sole person able to decrypt those things.

Such, PGP is used, amongst other things, for a system called end-to-end email encryption. The system goes like this:

- Alice has a computer, on which she runs an email client (Outlook) and generates a pair of keys, public and private.
- Bob has a computer, on which he runs an email client (Outlook) and generates a pari of keys, public and private.
- Alice send to Bob her public key, Alice keeps her private key hidden, stored safely
- Bob send to Alice his public key, Bob keeps his private key hidden, stored safely
- Alice send to Bob an email message, encrypted with Bob's public key that she has.
- Only Bob, on his own computer, where he installed the private key is able to read the message Alice sent

Alice and Bob can use different email clients (Thunderbird, Outlook, Mac Mail, a.s.o.) with the requirement that it supports PGP.



<u>1. Install PGP Support in Microsoft Outlook</u>

<u>1.1. Install</u>

Access <u>https://www.encryptomatic.com/openpgp/</u> and download OpenPGP for Microsoft Outlook

← → C ① Procryptomatic L	LC [US] https://www.encryptomatic.com/openpgp/	🖈 😕 🧛 🤤 i
🚻 Apps Ġ Google 🗋 Home - Met	al Nation 🛐 (1) Facebook 🛐 Messenger 🧧 YouTube 🔕 Blogger: Marketing i 🗨 Tutonials - Contabon 🕎 22 Best Alternatives: 🕐 Free Training Materin 📚 Snipe-IT Free Open i 🔩 Zonga 📒 Music 🚥 WeTransfer 📓 Inventa	irierea online »
	encryptomatic Improving the Email Experience Call +1-651-815-4902 Improving the Email Experience	
	OpenPGP for Microsoft Outlook by Encryptomatic®	
	Send OpenPGP Encrypted E-Mails From	
	Microsoft Outlook 2016/2013/2010.	
	Free for Personal, Non-Profit and Journalist Users.	
e chat	Download EXE Download ZIP Buy a Business License	

1.2. After you install the program, open Microsoft Outlook and select Key Management.

File Home	Send / Receive	Folder View Add-ins	Help 🛛 🛛 Tel	ll me wł	nat you want to o	do						
New New Email Items •	Delete Archive	Reply Reply Forward E	Move to: ? To Manager Team Email	*	Move *	 ○ Unread/ Read ▶ Follow Up + 	Search People	A) Read Aloud	Send/Receive	Key Management	 Dptions Buy 	
New	Delete	Respond	Quick Steps	G,	Move	Tags	Find	Speech	Send/Receive	Encryptom	atic OpenPGP	-(21
▷ EPGP		Microsoft Outlook Microsoft Outlook Test Me This is an email message sent	issa 16:26		To besleaga.	valentin@gmail.com						^

<u>1.3. Then select Key Import -> New</u>

y Import Key Share View					
New Import Key From File	Valid Until	Name	Email		
port From Key Server					



1.4. Generate

A new window will appear. In this windows select the email account and enter a passphrase. After the passphrase is entered click "Generate".

Generating keys). This can take some time. Please stand	by.	vhat you want to do	All 😂 Forward 2018 16:26	
Drag your Favorite Folders Here	4 Today		Microso	oft Outlook <	>
▷ EPGP	Key Management Key Import Key Share	View	Wichoo	n outlook risk missage	- 🗆 X
Inbox 1	Filter				
▷ [Gmail]	Key ID	Generate New Key			
Călătorii					
Chitanțe		Email			
Junk					
Outbox		Passobrase		1	
Personale		r doopiirdoo			
Serviciu		Repeat Passphrase			
Trash		Expiration date	06 July 2020		
Unwanted			Master key	Sub key	
Search Folders		Key alg / strength	DSA 2048 ~	ELG-E 2048 ~	
	-			Generate Cancel	

1.5. After the key is generated the Key Management window should look like the printscreen bellow.

	mport Key Share	View					
r							
	Key ID	Valid From	Valid Until	Name	Email		
	3C9528EEACD3C7E7	7/6/2018 4:33 PM					



2. Start sending encrypted email

2.1. From Key Management select Key Share > Export to file

Filter Key II	Export to File Export to Clipboard Send to Email Upload to Key Server Refresh Selected Key from Key Server
Key II 3C952 83184	Export to Clipboard Send to Email Upload to Key Server Refresh Selected Key from Key Server
	Refresh All Keys from Key Server Manage User IDs Change Passphrase Revoke
	Delete

2.2. The select "Export public key" and save it.

😂 Ke	y Management		- 🗆 ×							
Key I	mport Key Share	View								
Filter			Export Keys							
	Key ID	Valid From	This is a key nair							
*	3C9528EEACD3C7E7	7/6/2018 4:33 PM	Do you want to export both the Public and the secret Private Key to text files?							
8	83184AA0D7690B5	7/6/2018 4:39 PM								
			Export Private and Public Keys Export Public Key Cancel							

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2.3. After the public key is saved, send an email with the public key attached and send it to the desired recipient

	o	4 =		This is my	public key - Me	sage (HTI	ML)	⊡			×
File	Message	Insert C	Options	Format Te	kt Review	Help	Q Tell me what	t you want to	do		
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Clipboard	5	Basic Text		Gi i	Include	Ta 🕞	Enc	ryptomatic O	penPGP		~
3=	From 🔻										
Send	То	user@gmail.	com;								
Jena	Cc										
	Subject	This is my p	ublic key								
	Attached	puł 3 K	blic key 2nd B	l.dat	•						



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3. Send PGP encrypted email

After the recipient receives and saves your public key, you can send encrypted emails by selecting from outllook "Encrypt" and "Sign".

⊟ 5	U T			This a t	est email - Messa	ige (HTM	L)	Ē	-		×
File	Message	Insert	Options	Format Te	ot Review	Help	Q Tell me what you	ı want to	do		
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Send	То										
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s	ubject	This a test	email								
This text	is encrypte	٤d.									

After you select the "Encrypt" and "Sign" the next message will appear.

Х

The recipient will receive an encrypted email will be shown like in the image bellow. To decrypt the email, open it and type the passphrase.

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s	to Decrypt this message.
s	
eq Passphrase	OK Can
	is lea Passphrase

-----BEGIN PGP

Version: Encryptomatic OpenPGP Add-in for MS Outlook 2.5.2.0

hQIOA4Bk6l31LOekEAf+JIdMLke62BzWt5Hzj7skzH7ylbktdspxAa2KlLw/uNsM CY5RPTGpdxUSdiHcxlkVfzZK8ehHGXTk3oglIsflN3y4PMaUgvifMfA3KSTgYE7n bZUymbakFiurJZJJYhu/gz5OY0AYfghkUKVkwmTzwHjUebOvhW01qoj/soQnKmYh 87rlCw46L9n7y/KnZ5jlelzDeLbwbMLfWqu/Gh8a035ORnlxQKWeJ1c5jDfFMQv/ d5T4rkXgH1sJij9ZbUDuiqe64Hw5OnXViz36v8HBAkrSrMzDxLy6Z1sqHjvngdab DfJdkaSb/yh57s7PjTip6lZZ9XBzhFINIlHvFzKKrwgAi25ciOTWUzGwIsl0L13R pocDv+haqDfbsYkVnNajsljS7iPtlLyFFl7Rb+RE8bDLOPMqN4dWyW5+K/+D/jaq RdTludsIzdRwpQn2OfZFNCz0AgDZhJBMQluz5mc8zHTm8lqRftJ0X+3mBM5K52zb tc8rJL8JTclc0CTpLSWF5RoPDVJOSUeql71T8ezuQKXbZnPPN7TS7iE9m07M/Vsy EMvYNUvVuRp6aHDJkital9+IaQfKUvCimND5uFsYotFXJZg1/Ik7Lr3YVw7PfrEX kXnjM3CmY2DvlHPcjmTiOlddjr3j7WCii5itaY1m7w7PN3vWdLz6K4uMiPlsV9ob fdLAnAHh/A7Kp/jH+Ko3A80W0Apb3+/AL8Fp3NW8aO6f1g1+4h6F/2ObUiqpUdOz 7LIPQuysy7jty0PzHpZZ9jC58R4Kju229kCrSthaFrWXhtW4qe6v8vr2+//QWTfy 7eEZxRw+2F5TVHjw6ZnQB7rdJUEz4JB9iwOWc4LNIsF6QX0b+TgWnnSQfTchRaPg hEwmcTnCZkCsoKAShjjzUbi1QPJ54o8Vi8IZJoy/BK3fPgy1SNMIbrklQOQrbi3Q 28L5Z+I4HID04O01SAOhBwzcjsMEu9B2+ITd325olusPkD0B3jaVFlMJT5VJcxiE iHrAvPseBXzvRUdiD/uWz95yQN5Z9dh0L3Fk640ZYAozxlzc38NrfvAFAmojZkHm SLUCGwqM1RIKwULeYlVu64+0vzP1qexZl8qql1temDWrUciFzP0Lfbkcw940sFbJ agmlLixCh3eZBYiBnXc9fQ== =x5RN

-----END PGP MESSAGE-----



After you type the passphrase, the encrypted text will be decrypted and shown like in the picture bellow.

8 5 C 1		n			×				
File Message	Help 🛛 🖓 Tell n	ne what you want to de	D						
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Delete	Respond	Quick Steps	r ₂	Move	Tags 🗔			Zoom	~
Fri 06/07/2 This a test	2018 17:19 t email								~

This text is encrypted.

Encrypted & Signed with OpenPGP for Outlook by Encryptomatic LLC. Free for personal use. Learn more at https://www.encryptomatic.com/openpgp/