

Installing and using PGP V1.00

Installing and using PGP

The following paper describes how to install and use PGP.

This document is not static. Check for updates regularly.

History: V1.00 - Initial release

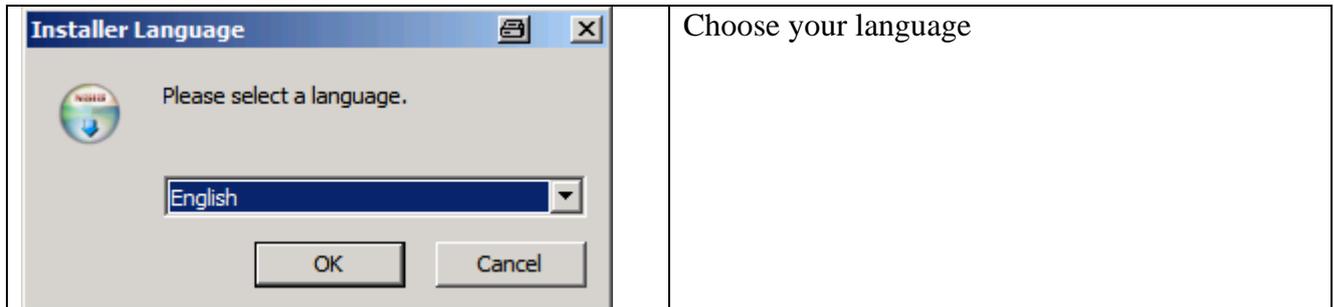
Overview

- **Install GNUPG (GNU Privacy Guard)**
- **Install Thunderbird 1.5**
- **Create PGP Key**
- **Write an encrypted email**

Install GNUPG

1. Download the GNUPG for Windows
<http://www.gnupg.org/download/index.html#auto-ref-1>

2. Start the installer

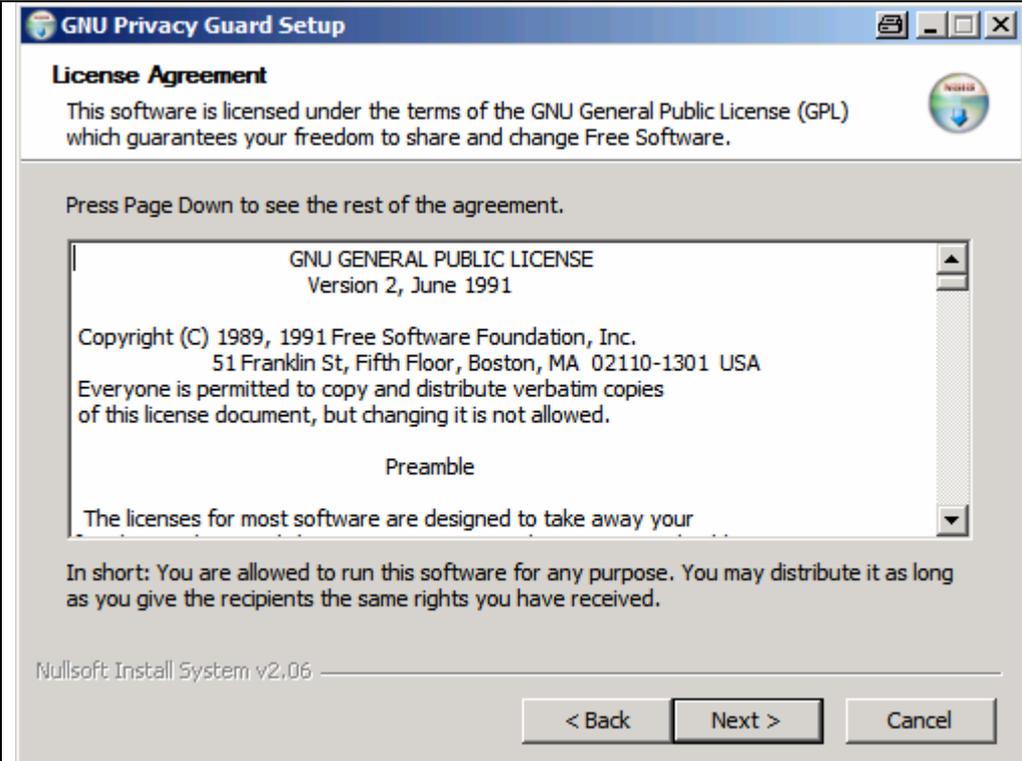


3. Click next



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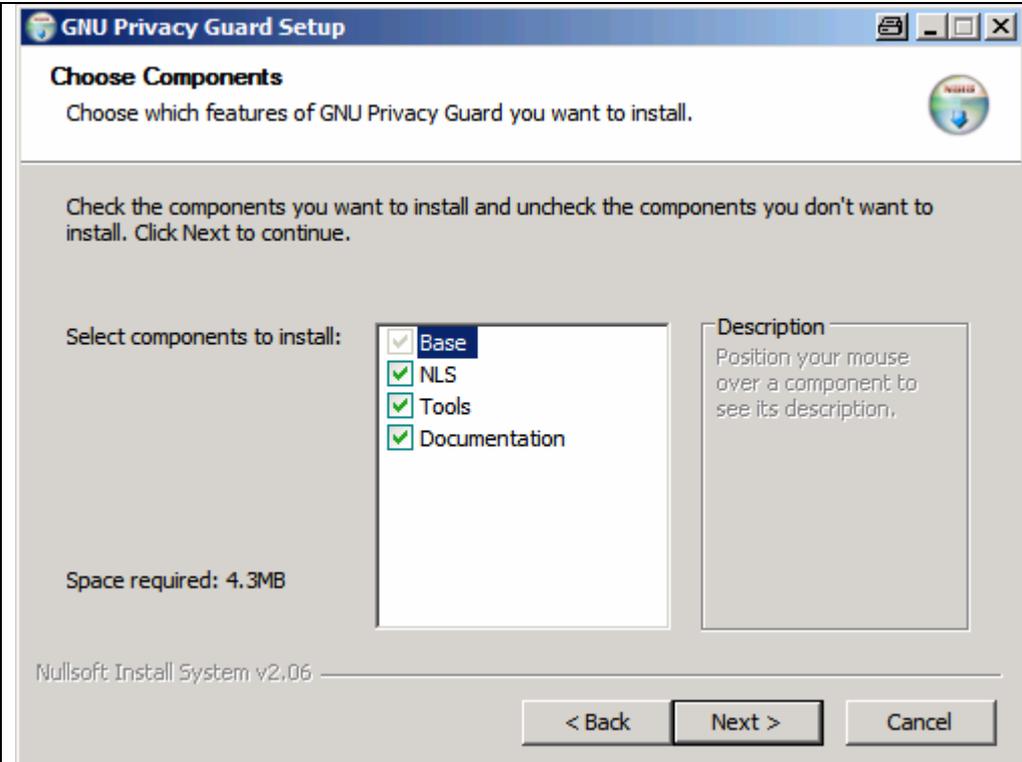
4. Click next



The screenshot shows the 'GNU Privacy Guard Setup' window with the 'License Agreement' tab selected. The text reads: 'This software is licensed under the terms of the GNU General Public License (GPL) which guarantees your freedom to share and change Free Software.' Below this, it says 'Press Page Down to see the rest of the agreement.' A scrollable text area contains the 'GNU GENERAL PUBLIC LICENSE Version 2, June 1991' and its terms. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

Click on next

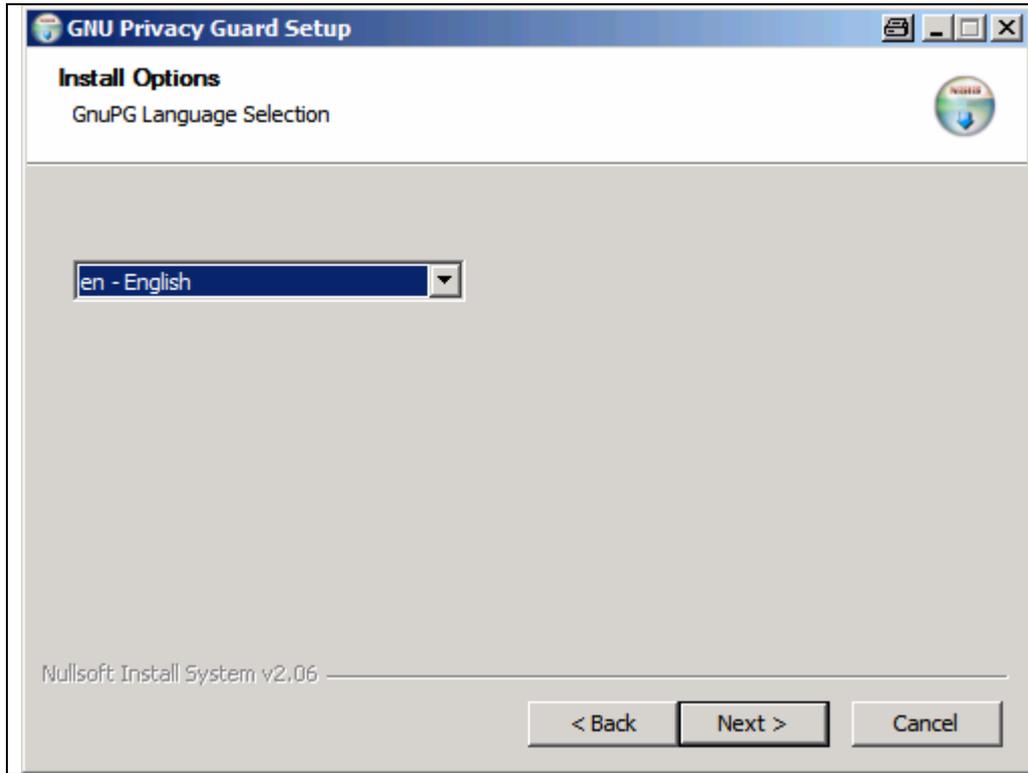
5. Click next



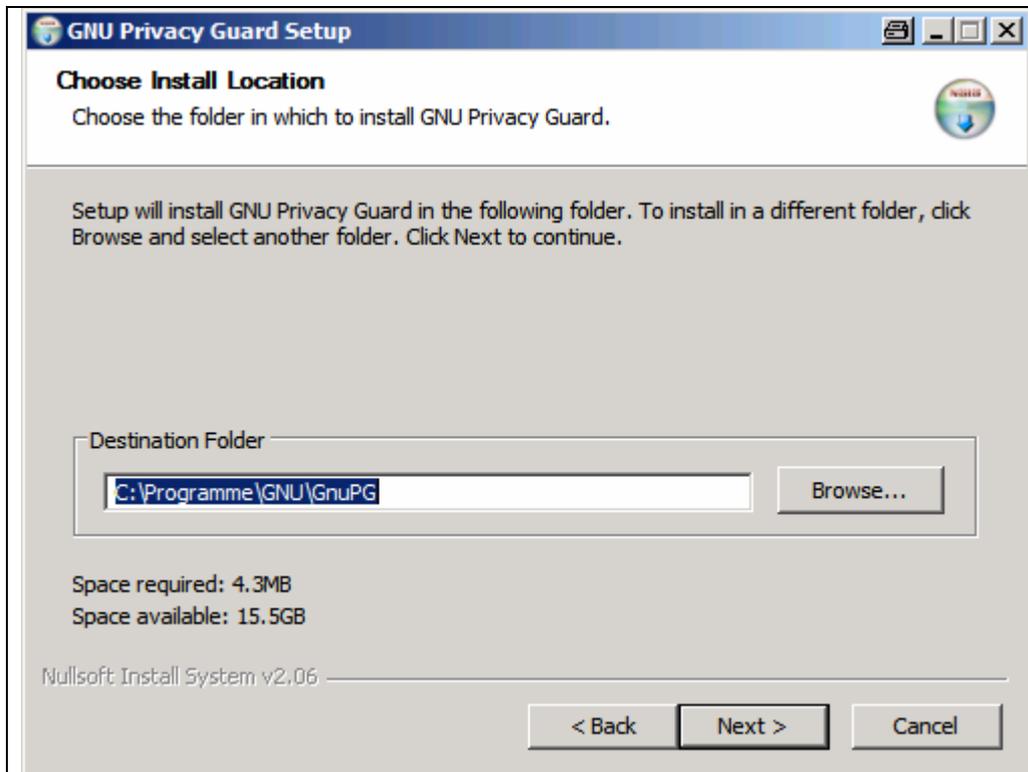
The screenshot shows the 'GNU Privacy Guard Setup' window with the 'Choose Components' tab selected. The text reads: 'Choose which features of GNU Privacy Guard you want to install.' Below this, it says 'Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.' A list of components is shown with checkboxes: 'Base', 'NLS', 'Tools', and 'Documentation', all of which are checked. To the right, a 'Description' box contains the text: 'Position your mouse over a component to see its description.' Below the list, it says 'Space required: 4.3MB'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

Click next

6. Click next

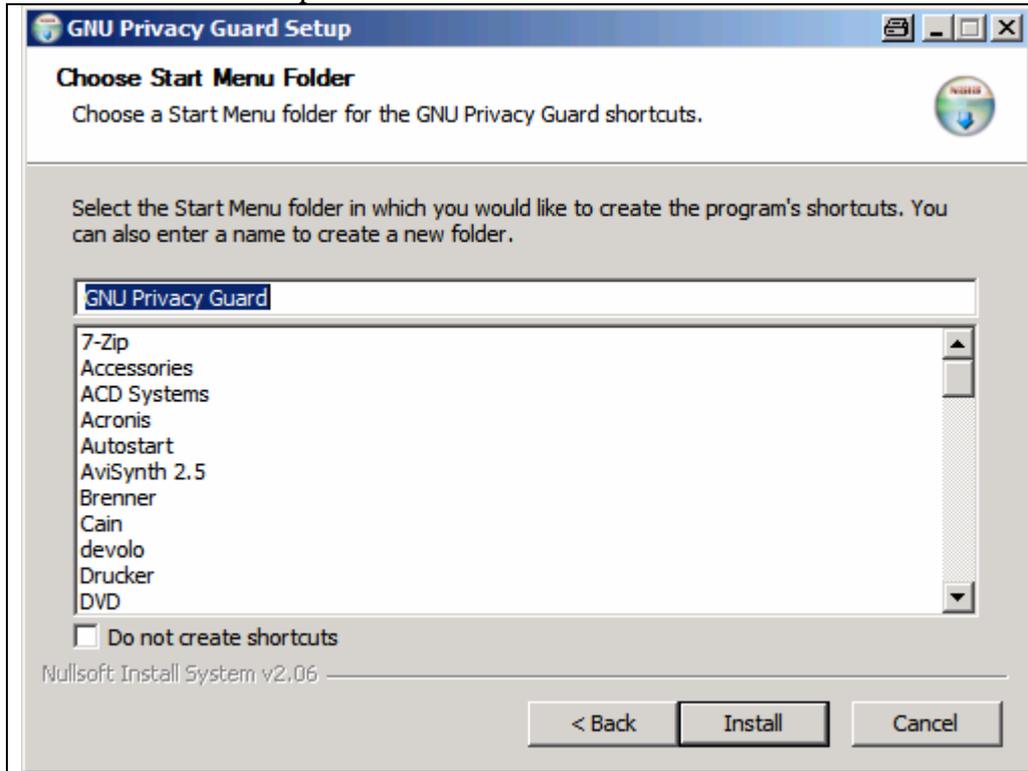
 <p>The screenshot shows the 'GNU Privacy Guard Setup' window with the 'Install Options' tab selected. The title bar reads 'GNU Privacy Guard Setup'. Below the title bar, the text 'Install Options' and 'GnuPG Language Selection' is displayed. A dropdown menu is set to 'en - English'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The footer text reads 'Nullsoft Install System v2.06'.</p>	<p>Click next</p>
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7. Choose location

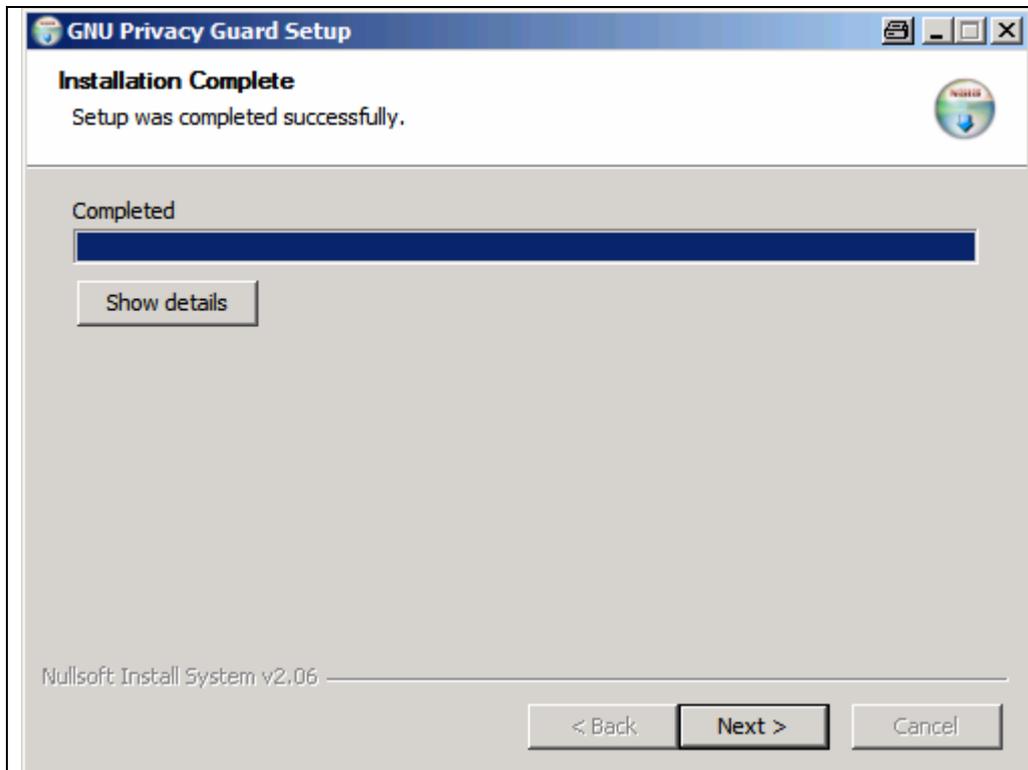
 <p>The screenshot shows the 'GNU Privacy Guard Setup' window with the 'Choose Install Location' tab selected. The title bar reads 'GNU Privacy Guard Setup'. Below the title bar, the text 'Choose Install Location' and 'Choose the folder in which to install GNU Privacy Guard.' is displayed. A paragraph of text reads: 'Setup will install GNU Privacy Guard in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.' Below this is a 'Destination Folder' label and a text box containing 'C:\Programme\GNU\GnuPG'. To the right of the text box is a 'Browse...' button. Below the text box, it says 'Space required: 4.3MB' and 'Space available: 15.5GB'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The footer text reads 'Nullsoft Install System v2.06'.</p>	<p>Choose location</p>
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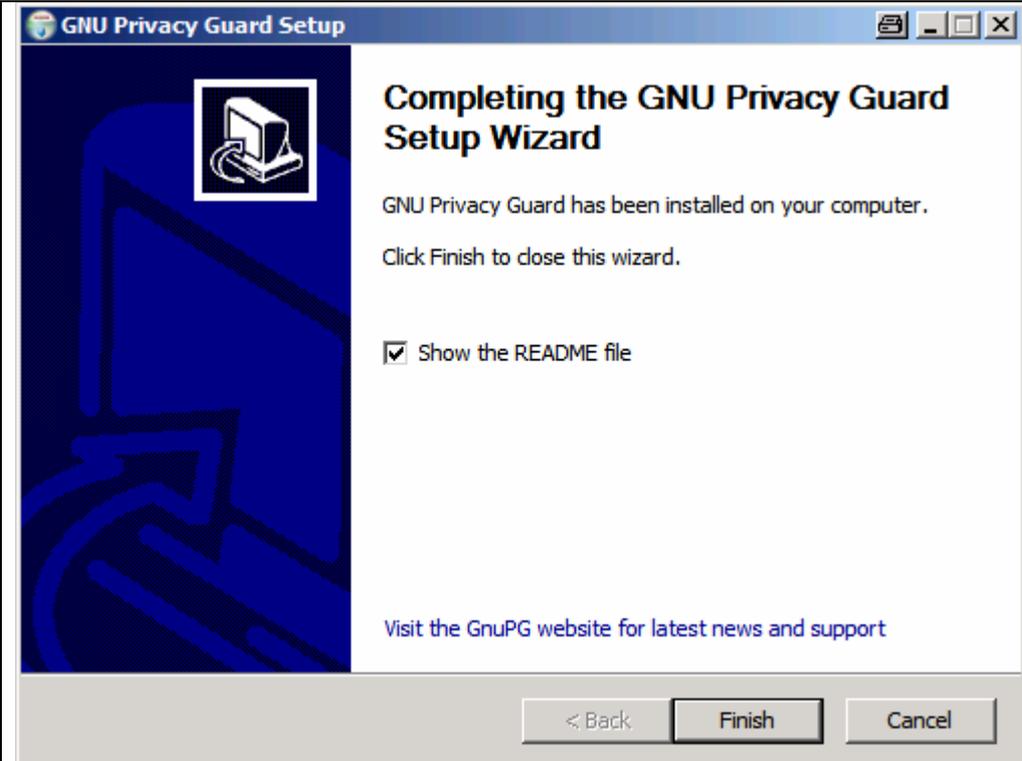
8. Choose Startup Folder

	Start Installation process
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9. Continue

	Click next
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10. Finish installation



Finish the Installation process

The installation of GNU Privacy Guard is now finished.

Install Thunderbird

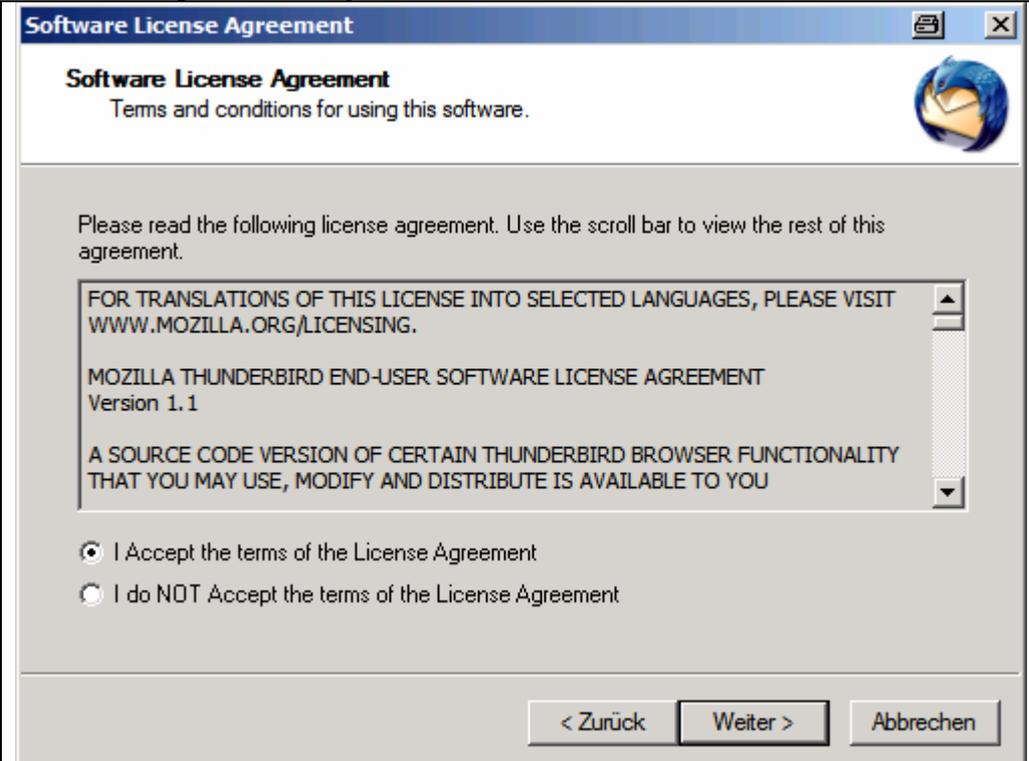
11. Download the Mozilla Thunderbird for Windows
<http://www.mozilla.com/en-US/thunderbird/>

12. Start the installer

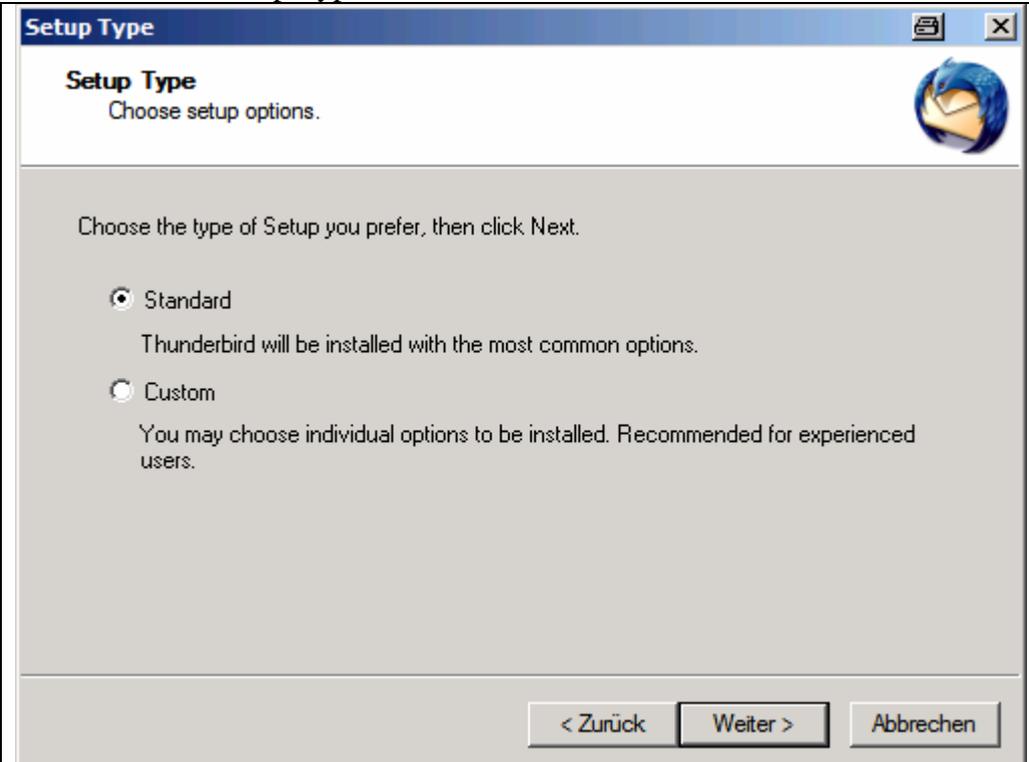


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13. Accept License Agreement

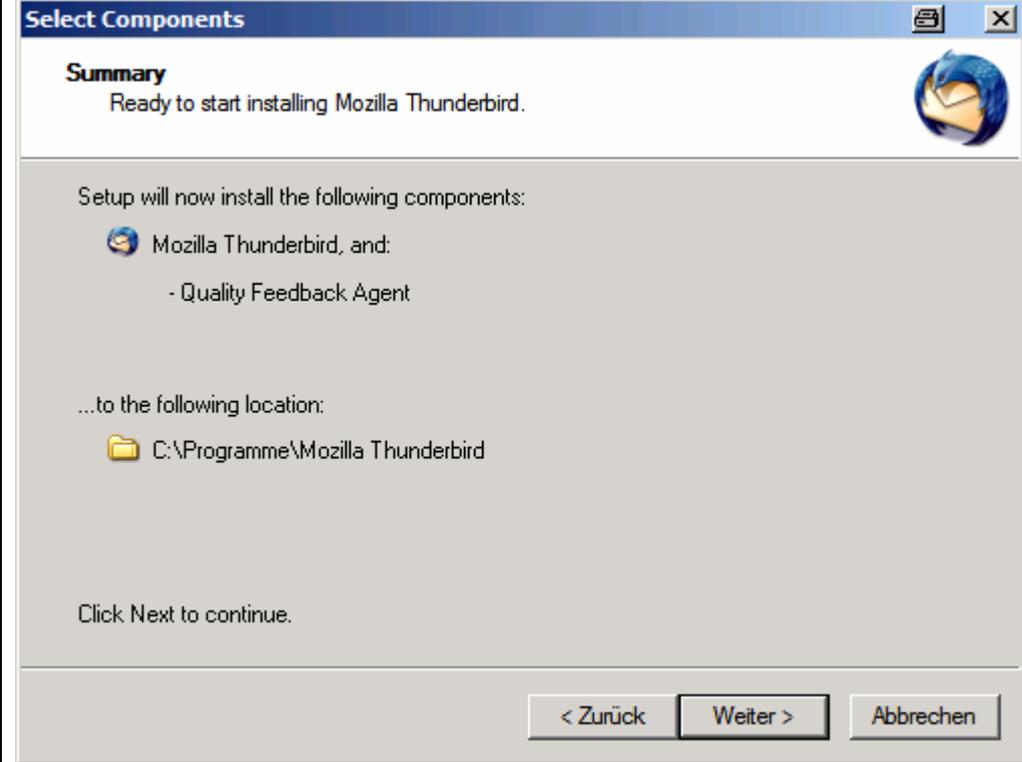
	Accept License Agreement
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14. Choose Setup Type

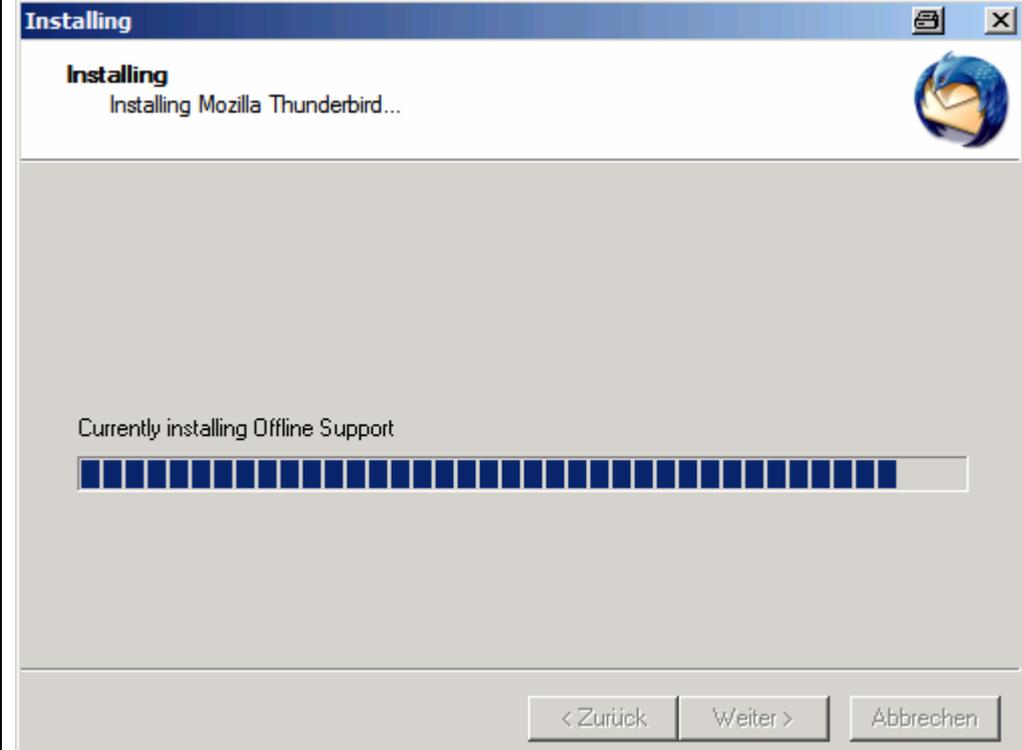
	Choose Setup Type
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15. Summary

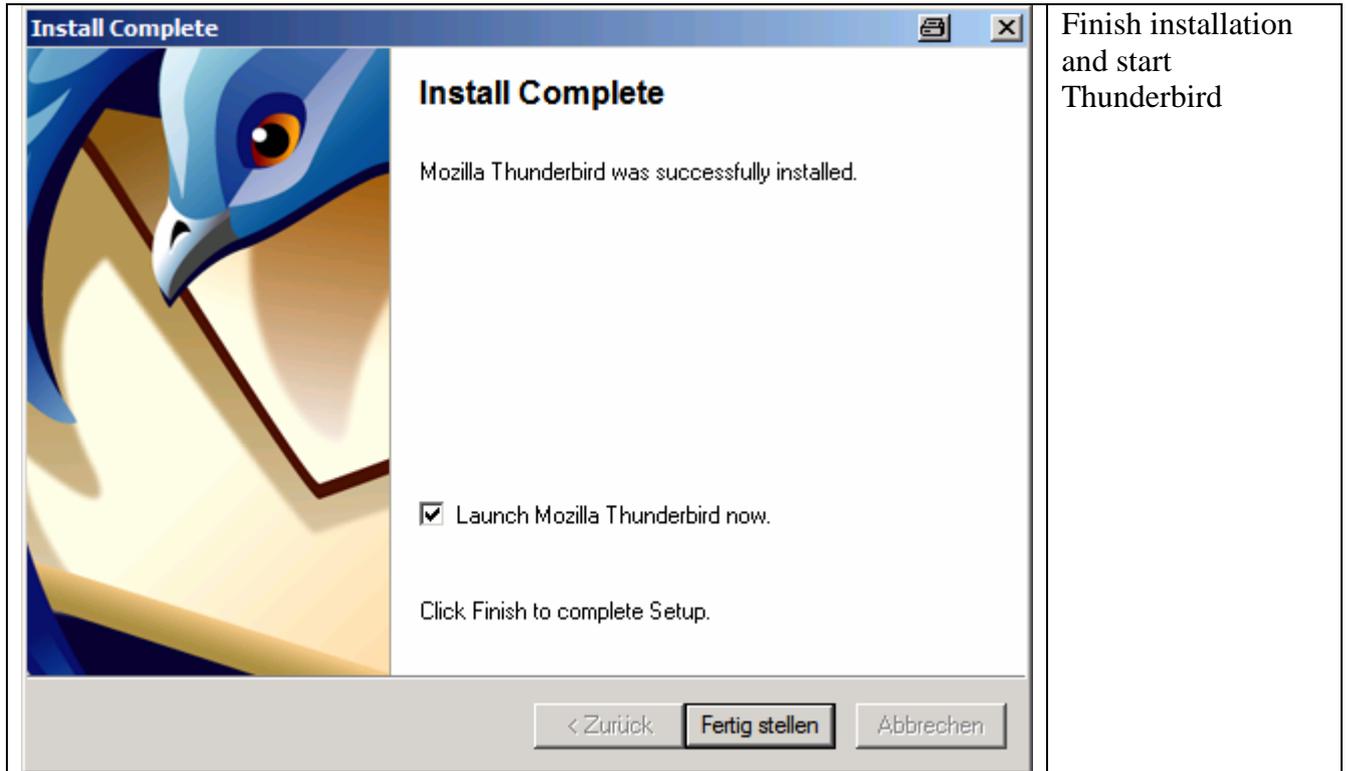
	Summary
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16. Installation process

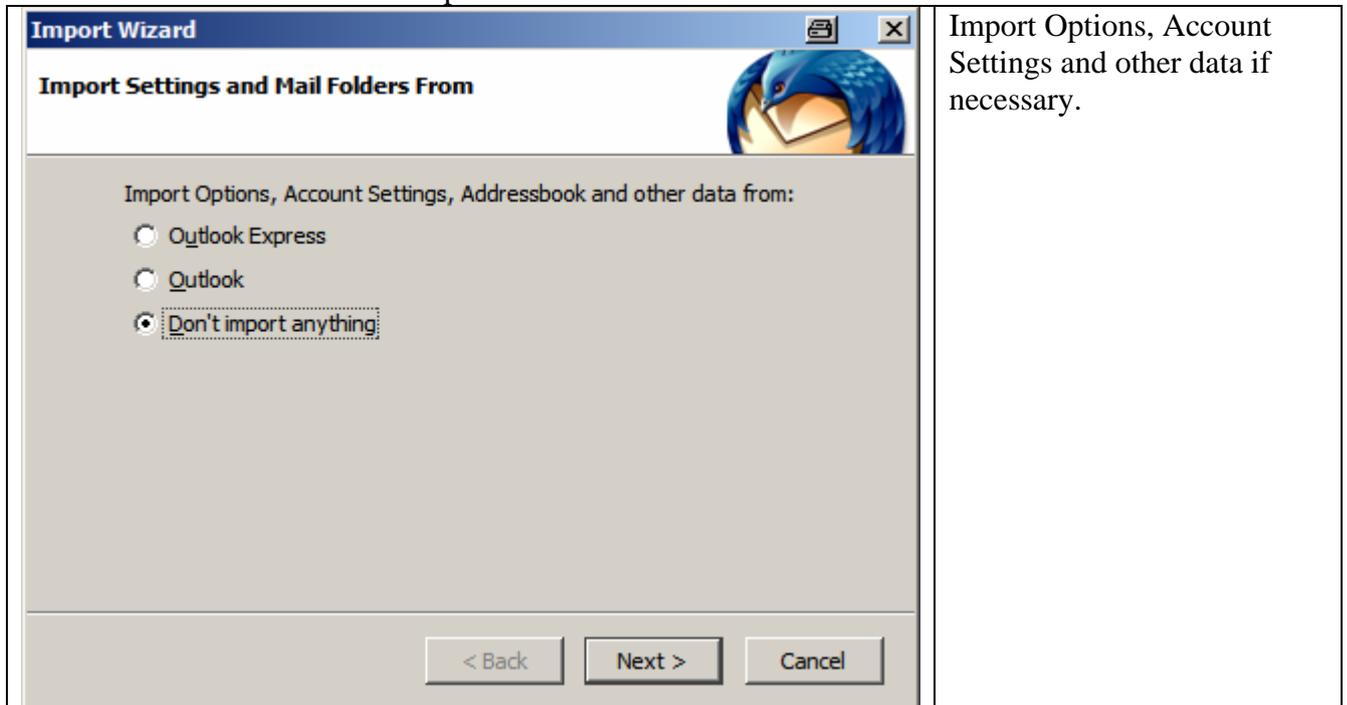
	Installation process
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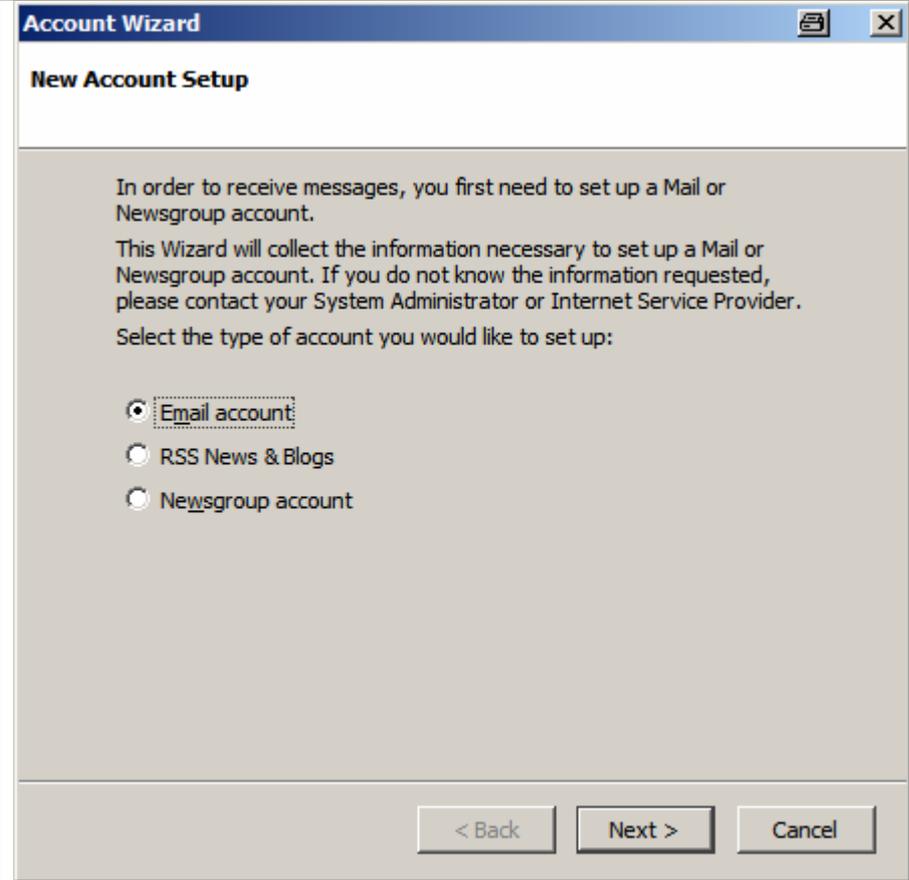
17. Finish installation and start Thunderbird



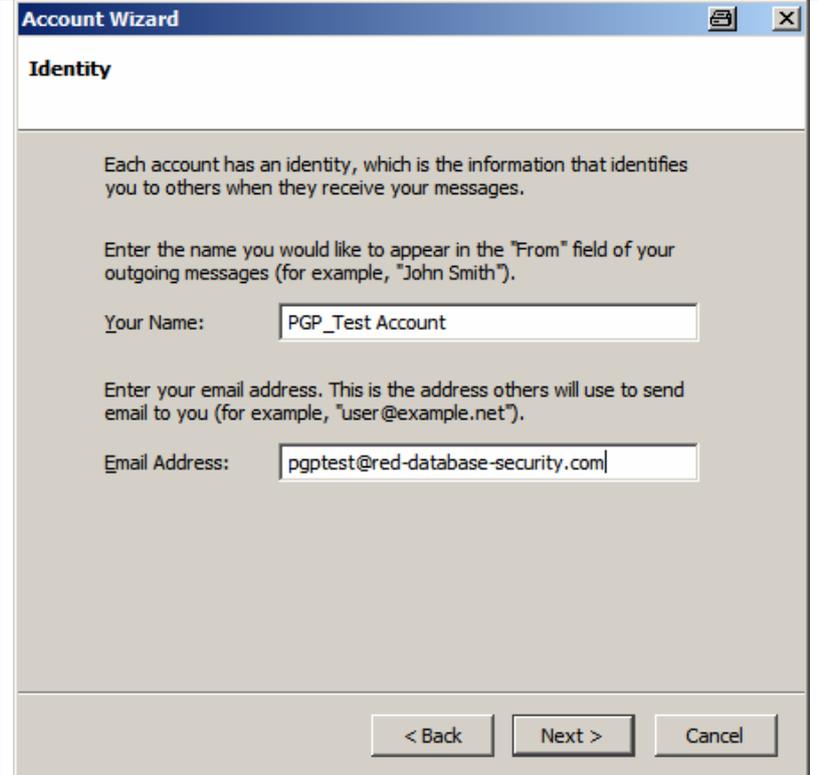
18. Start Thunderbird and import Wizard



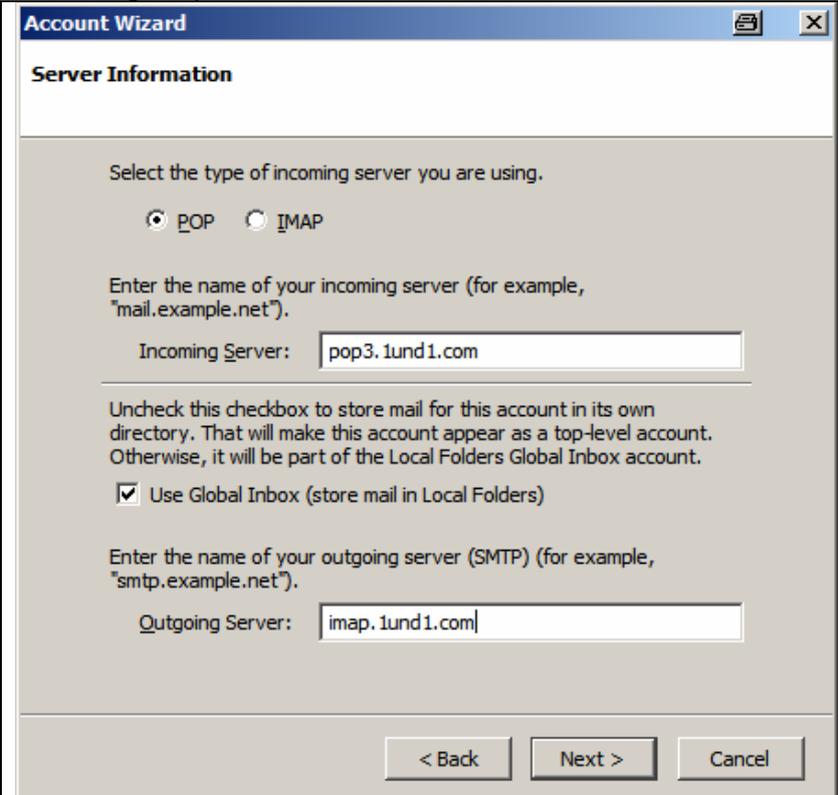
19. Start the installer

	<p>Run the Account wizard (displayed automatically)</p>
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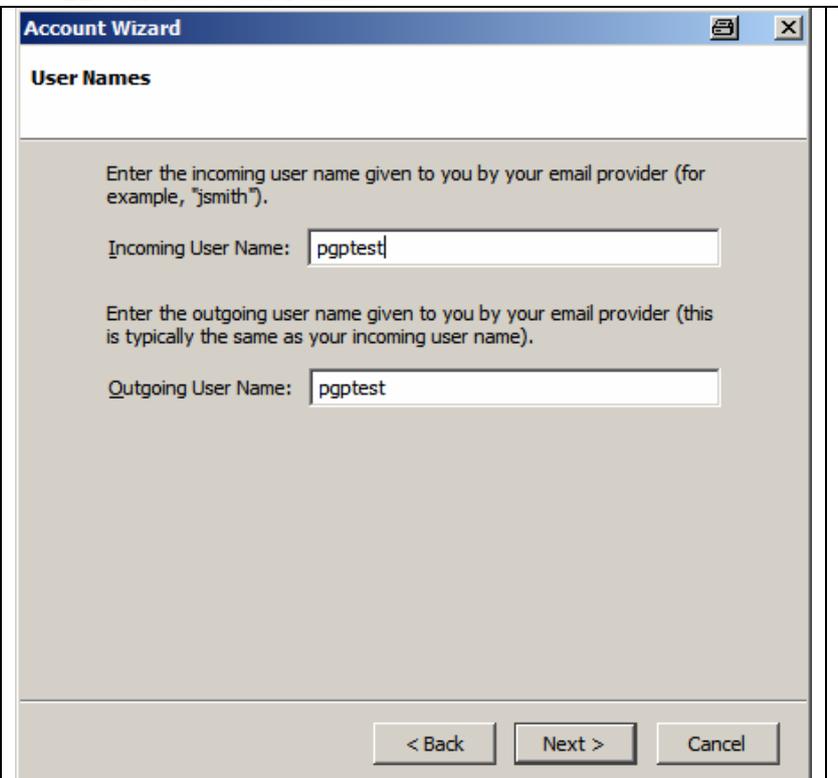
20. Enter your identity

	<p>Enter your Identity (name and email address)</p>
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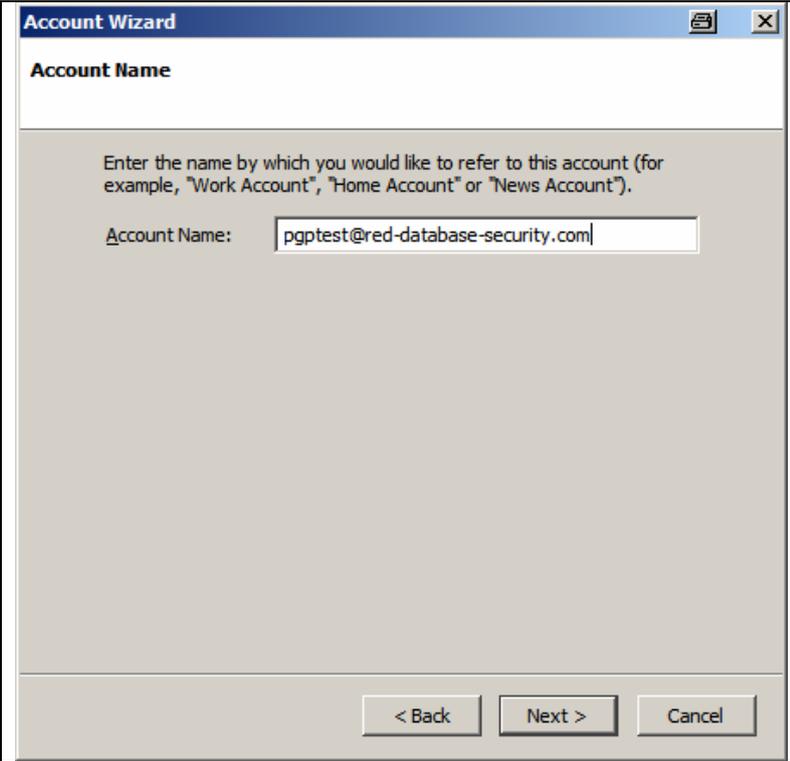
21. Specify Server Information

 <p>Account Wizard</p> <p>Server Information</p> <p>Select the type of incoming server you are using.</p> <p><input checked="" type="radio"/> POP <input type="radio"/> IMAP</p> <p>Enter the name of your incoming server (for example, "mail.example.net").</p> <p>Incoming Server: <input type="text" value="pop3.lund1.com"/></p> <p>Uncheck this checkbox to store mail for this account in its own directory. That will make this account appear as a top-level account. Otherwise, it will be part of the Local Folders Global Inbox account.</p> <p><input checked="" type="checkbox"/> Use Global Inbox (store mail in Local Folders)</p> <p>Enter the name of your outgoing server (SMTP) (for example, "smtp.example.net").</p> <p>Outgoing Server: <input type="text" value="imap.lund1.com"/></p> <p>< Back Next > Cancel</p>	<p>Specify Server Information</p>
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22. Choose User Names

 <p>Account Wizard</p> <p>User Names</p> <p>Enter the incoming user name given to you by your email provider (for example, "jsmith").</p> <p>Incoming User Name: <input type="text" value="pgptest"/></p> <p>Enter the outgoing user name given to you by your email provider (this is typically the same as your incoming user name).</p> <p>Outgoing User Name: <input type="text" value="pgptest"/></p> <p>< Back Next > Cancel</p>	<p>Choose User Names</p>
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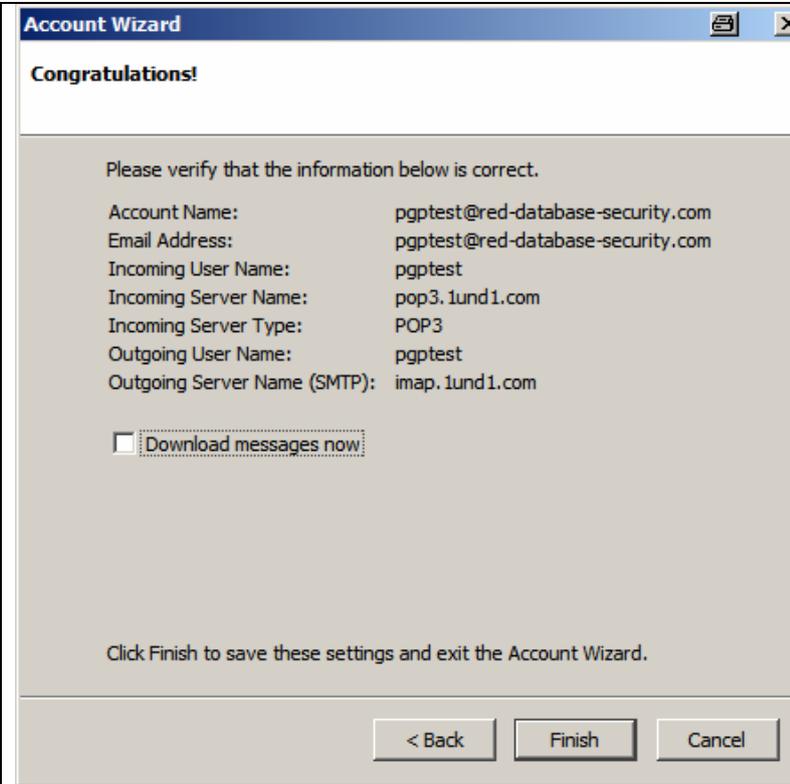
23. Choose Account Name



The screenshot shows a dialog box titled "Account Wizard" with a sub-header "Account Name". The main text reads: "Enter the name by which you would like to refer to this account (for example, 'Work Account', 'Home Account' or 'News Account')." Below this is a text input field labeled "Account Name:" containing the text "pgptest@red-database-security.com". At the bottom of the dialog are three buttons: "< Back", "Next >", and "Cancel".

Choose Account Name

24. Finish Account Wizard



The screenshot shows a dialog box titled "Account Wizard" with a sub-header "Congratulations!". The main text reads: "Please verify that the information below is correct." Below this is a list of account settings:

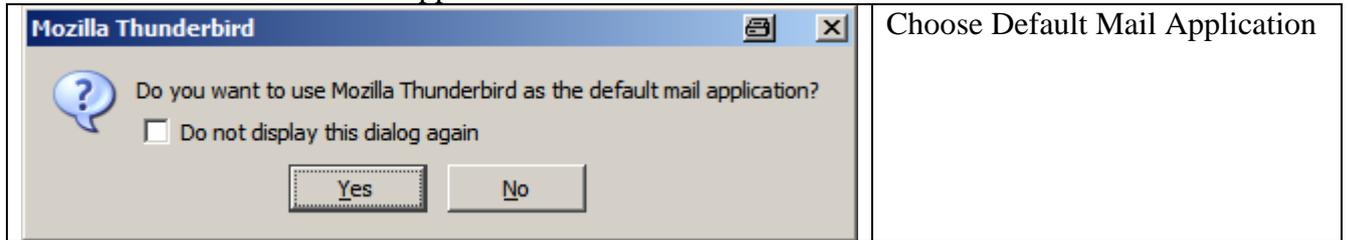
Account Name:	pgptest@red-database-security.com
Email Address:	pgptest@red-database-security.com
Incoming User Name:	pgptest
Incoming Server Name:	pop3.lund1.com
Incoming Server Type:	POP3
Outgoing User Name:	pgptest
Outgoing Server Name (SMTP):	imap.lund1.com

Below the list is a checkbox labeled "Download messages now:" which is currently unchecked. At the bottom of the dialog are three buttons: "< Back", "Finish", and "Cancel".

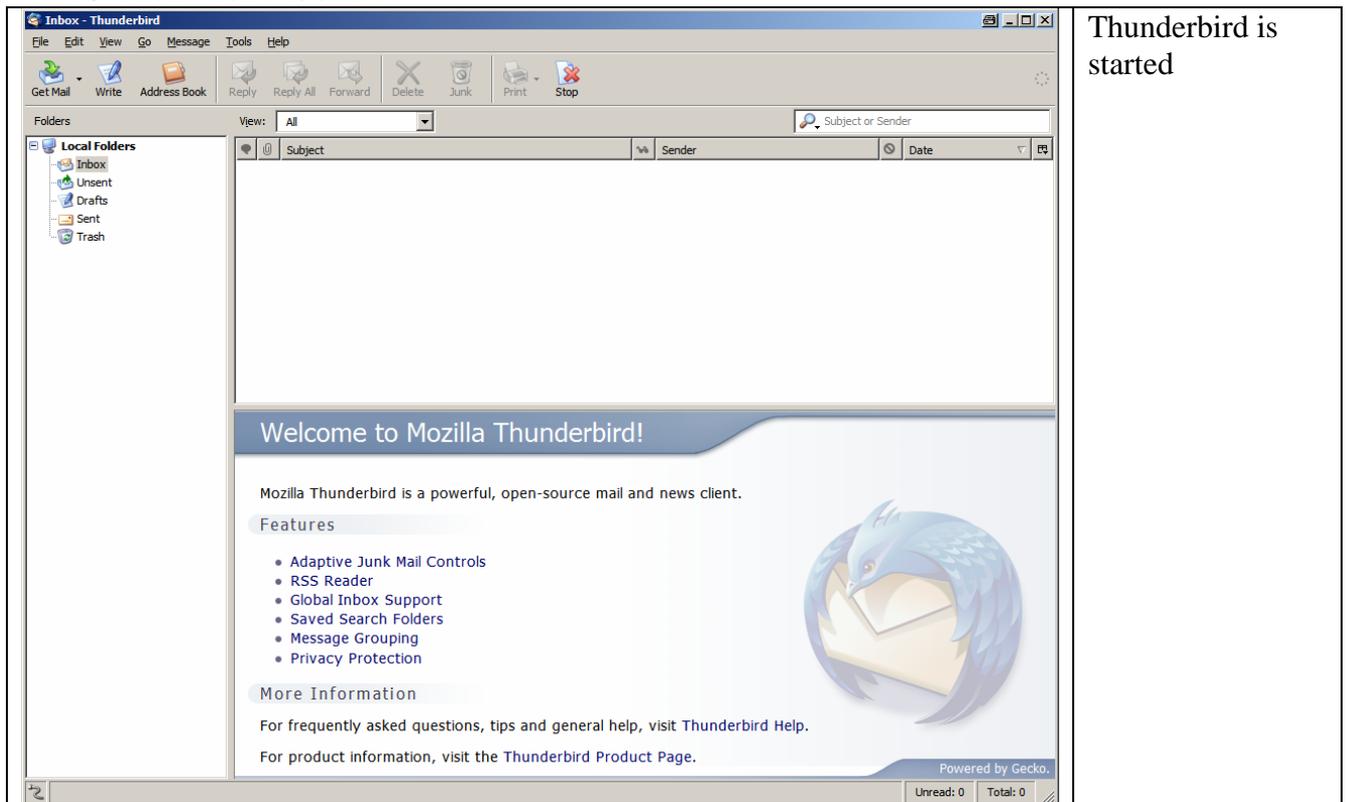
Finish Account Wizard

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25. Choose Default Mail Application



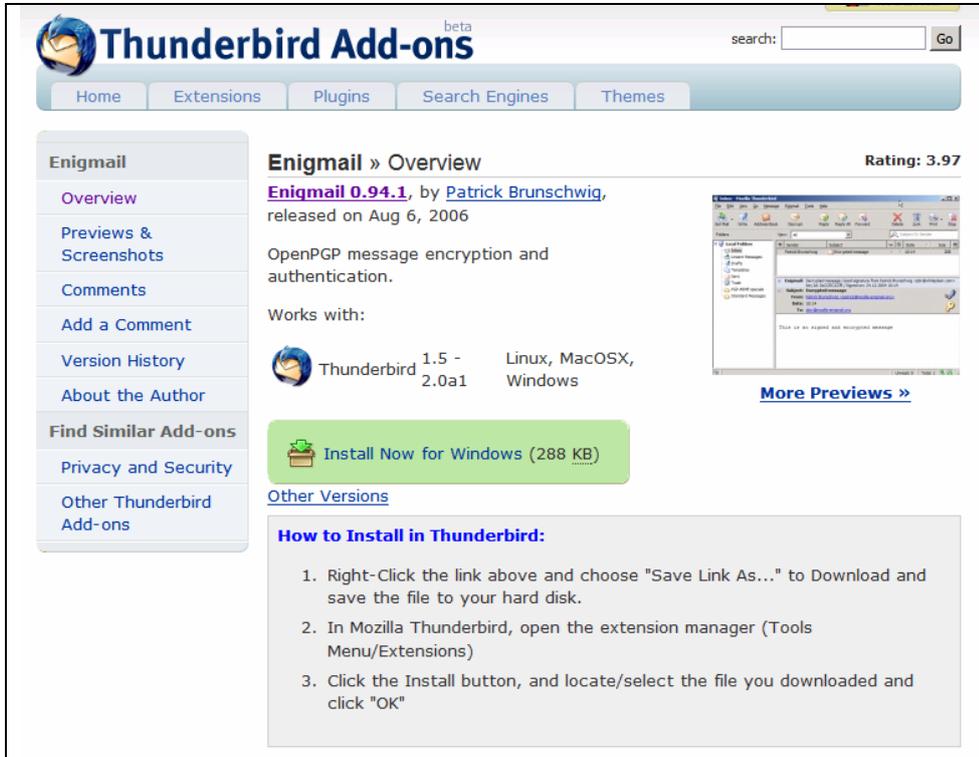
26. Thunderbird is started



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27. Save Enigmail Extension for Thunderbird on the haddisk

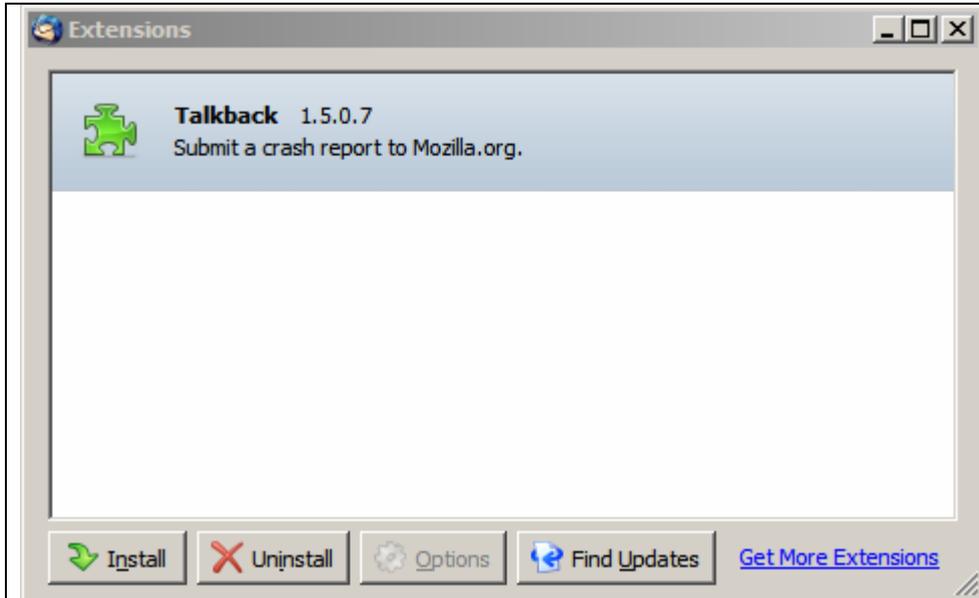
<https://addons.mozilla.org/thunderbird/71/>



The screenshot shows the Thunderbird Add-ons website for the Enigmail extension. The page title is "Thunderbird Add-ons" with a search bar. The navigation menu includes Home, Extensions, Plugins, Search Engines, and Themes. The left sidebar lists various actions for the Enigmail add-on, such as Overview, Previews & Screenshots, Comments, Add a Comment, Version History, About the Author, Find Similar Add-ons, Privacy and Security, and Other Thunderbird Add-ons. The main content area displays the "Enigmail » Overview" section, which includes the extension's name, version (0.94.1), author (Patrick Brunshwig), release date (Aug 6, 2006), and a rating of 3.97. It describes the extension as "OpenPGP message encryption and authentication" and lists compatible Thunderbird versions (1.5 - 2.0a1) and operating systems (Linux, MacOSX, Windows). A prominent green button labeled "Install Now for Windows (288 KB)" is visible. Below this, there is a section titled "How to Install in Thunderbird:" with a three-step instruction list: 1. Right-Click the link above and choose "Save Link As..." to Download and save the file to your hard disk. 2. In Mozilla Thunderbird, open the extension manager (Tools Menu/Extensions) 3. Click the Install button, and locate/select the file you downloaded and click "OK". A small preview window shows the Enigmail interface within Thunderbird.

Save the Enigmail extension to the haddisk (e.g. C:\)

28. Start the installer

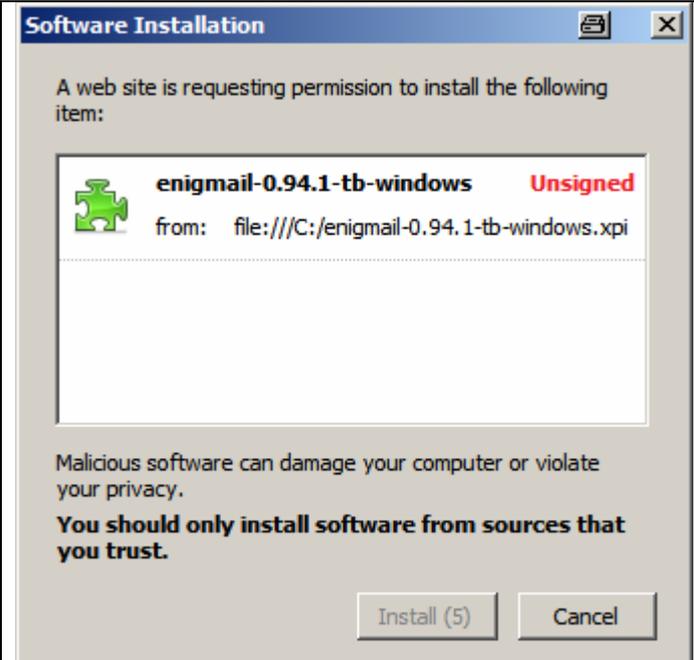


The screenshot shows the Thunderbird Extensions manager window. The title bar reads "Extensions". The main area displays the "Talkback" extension, version 1.5.0.7, with a description: "Submit a crash report to Mozilla.org.". At the bottom of the window, there are five buttons: "Install" (with a green arrow icon), "Uninstall" (with a red X icon), "Options" (with a gear icon), "Find Updates" (with a blue refresh icon), and "Get More Extensions" (with a blue magnifying glass icon).

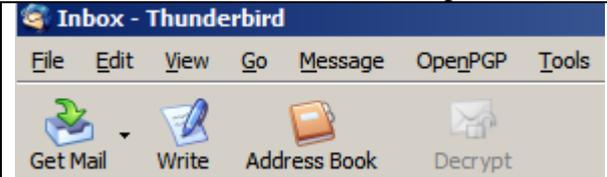
Choose the enigmail extension from the location (e.g. C:\)

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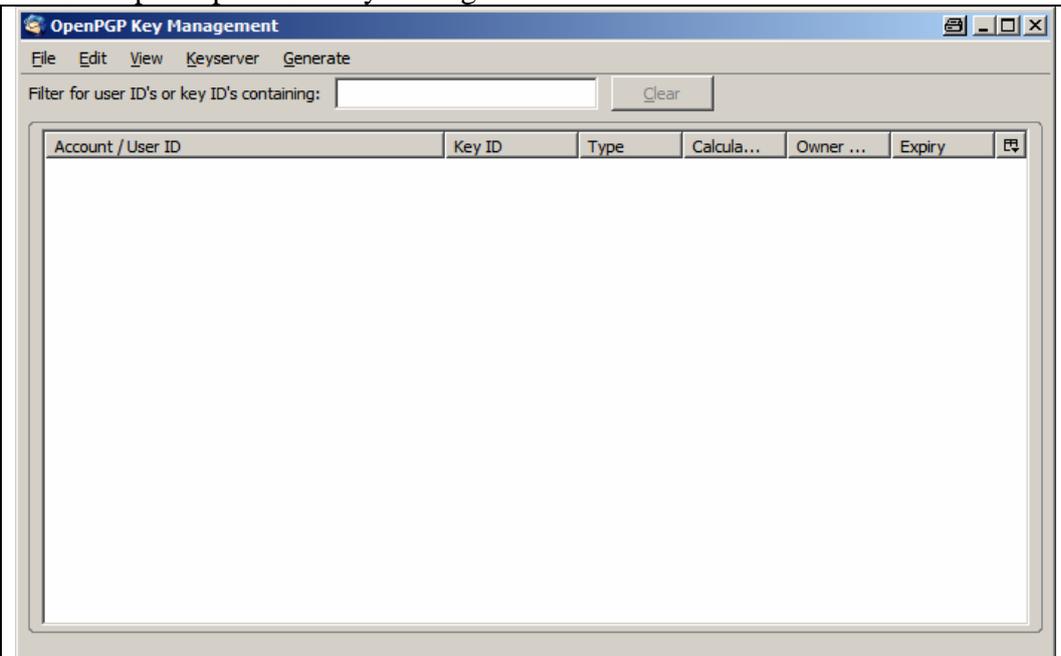
29. Install Extension

 <p>A web site is requesting permission to install the following item:</p> <p> enigmail-0.94.1-tb-windows Unsigned from: file:///C:/enigmail-0.94.1-tb-windows.xpi</p> <p>Malicious software can damage your computer or violate your privacy. You should only install software from sources that you trust.</p> <p>Install (5) Cancel</p>	<p>Install Extension and restart Thunderbird.</p>
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30. Now we see the Menue OpenPGP

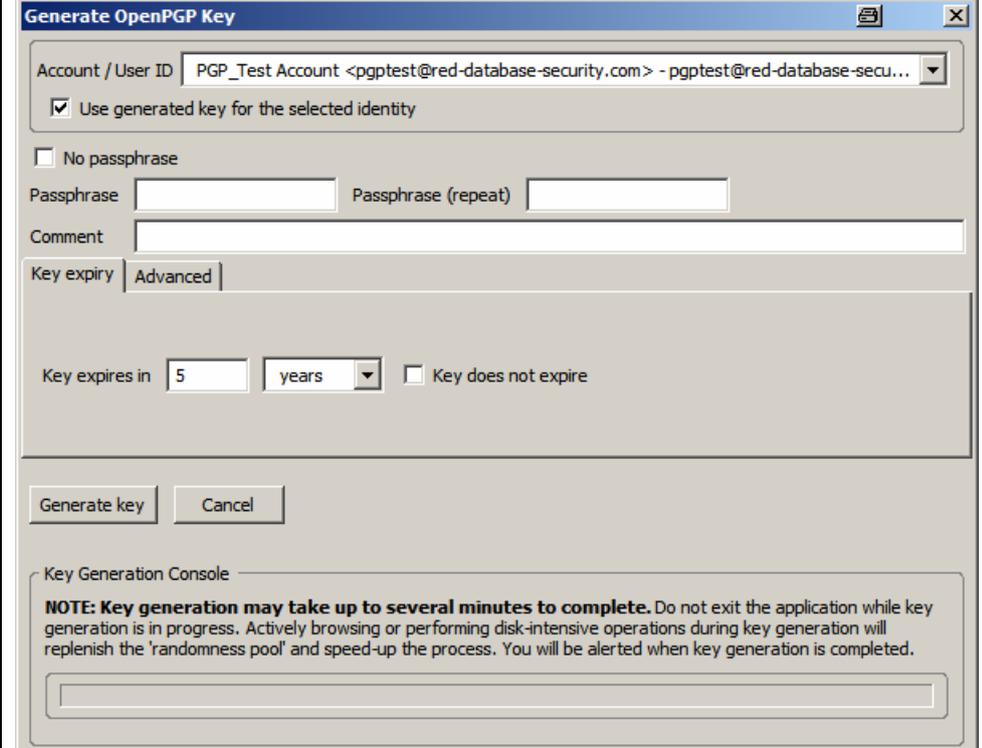
 <p>Inbox - Thunderbird</p> <p>File Edit View Go Message OpenPGP Tools</p> <p>Get Mail Write Address Book Decrypt</p>	<p>OpenPGP should be available now.</p>
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31. Open OpenPGP Key Management

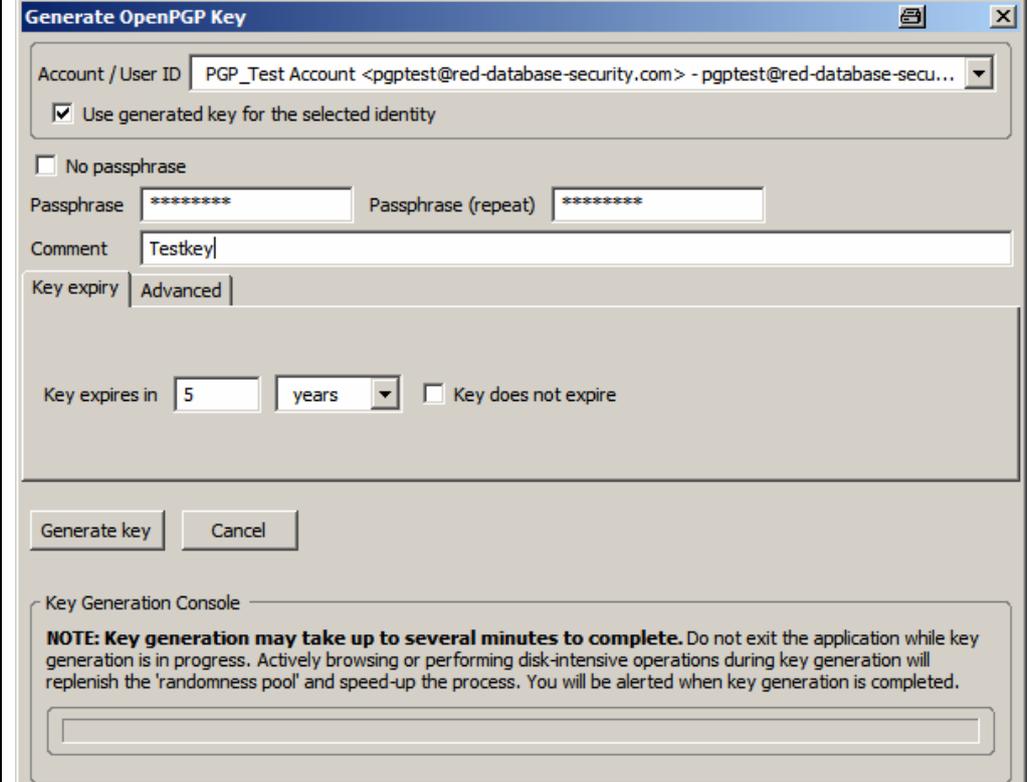
 <p>OpenPGP Key Management</p> <p>File Edit View Keyserver Generate</p> <p>Filter for user ID's or key ID's containing: <input type="text"/> Clear</p> <table border="1"> <thead> <tr> <th>Account / User ID</th> <th>Key ID</th> <th>Type</th> <th>Calcula...</th> <th>Owner ...</th> <th>Expiry</th> <th></th> </tr> </thead> <tbody> <tr> <td colspan="7" style="height: 200px;"> </td> </tr> </tbody> </table>	Account / User ID	Key ID	Type	Calcula...	Owner ...	Expiry									<p>Open OpenPGP Key Management and choose Generate New Pair from the menu.</p>
Account / User ID	Key ID	Type	Calcula...	Owner ...	Expiry										

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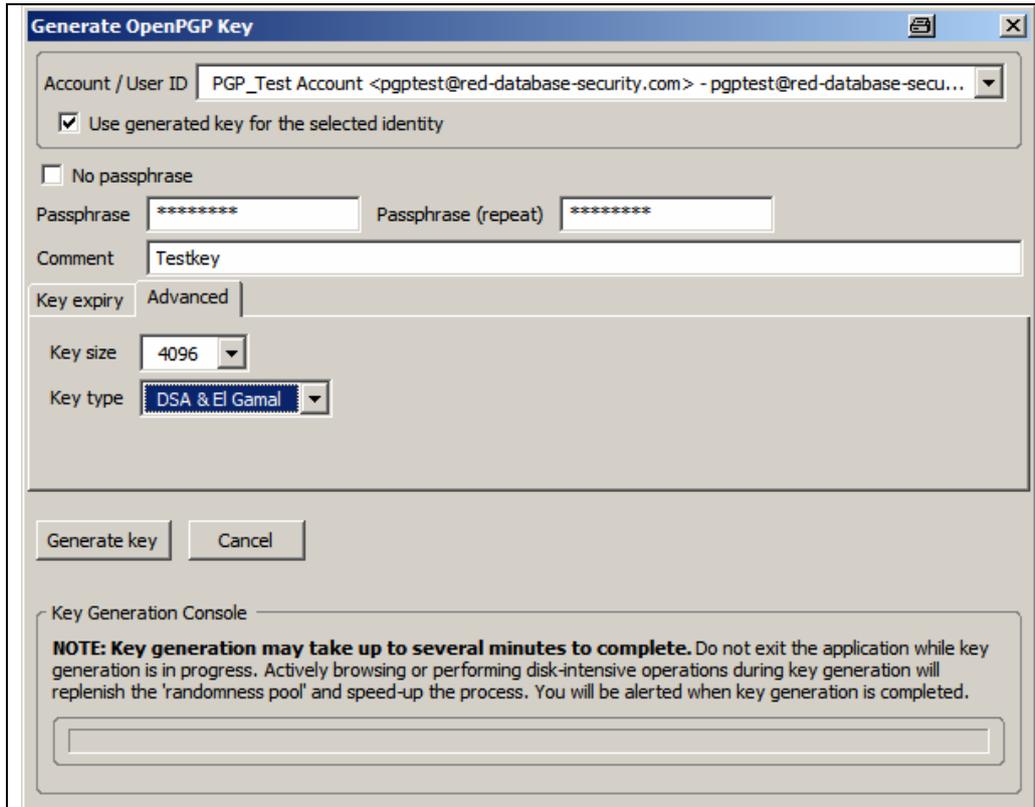
32. Generate OpenPGP Key

	<p>Choose your language</p>
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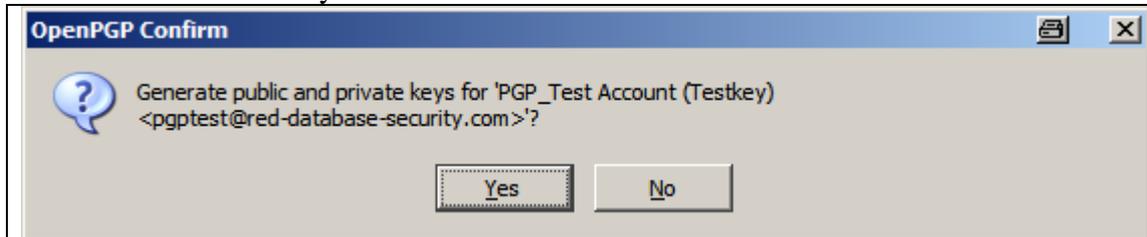
33. Enter Passphrase for PGP key

	<p>Enter Passphrase</p>
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34. Advanced

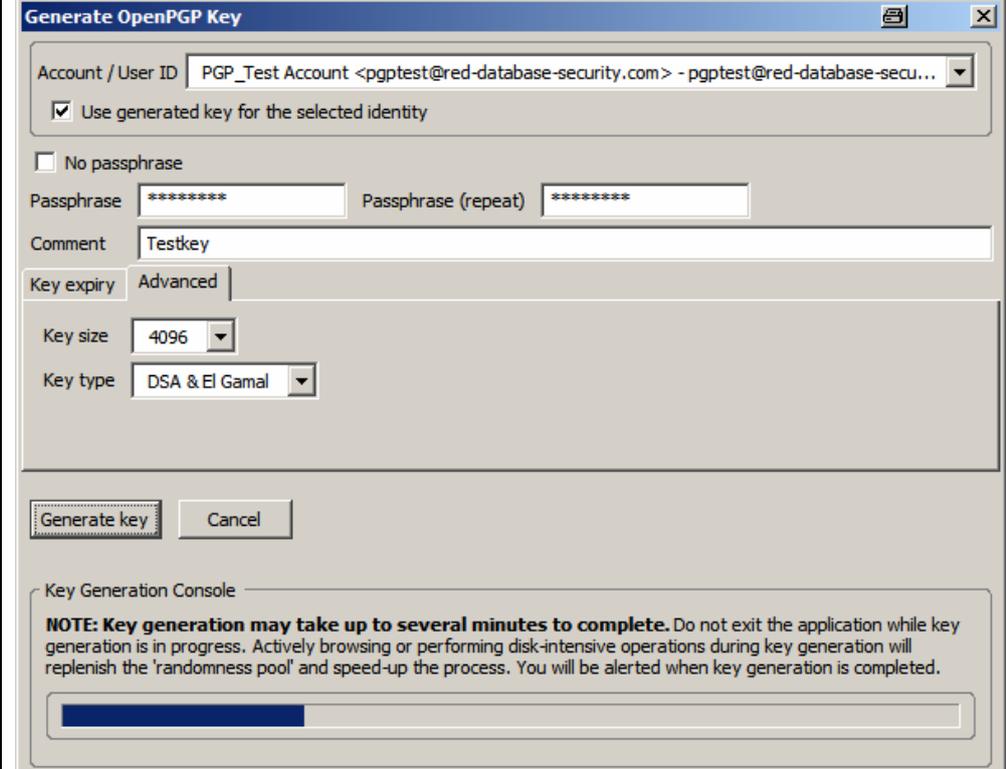
 <p>The screenshot shows the 'Generate OpenPGP Key' dialog box. The 'Account / User ID' field is set to 'PGP_Test Account <pgptest@red-database-security.com> - pgptest@red-database-secu...'. The 'Use generated key for the selected identity' checkbox is checked. The 'No passphrase' checkbox is unchecked. The 'Passphrase' and 'Passphrase (repeat)' fields contain asterisks. The 'Comment' field contains 'Testkey'. The 'Key expiry' tab is selected. The 'Key size' dropdown is set to '4096'. The 'Key type' dropdown is set to 'DSA & El Gamal'. There are 'Generate key' and 'Cancel' buttons. A 'Key Generation Console' section contains a note: 'NOTE: Key generation may take up to several minutes to complete. Do not exit the application while key generation is in progress. Actively browsing or performing disk-intensive operations during key generation will replenish the 'randomness pool' and speed-up the process. You will be alerted when key generation is completed.'</p>	<p>Choose key size 4096 in tab "Advanced"</p>
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35. Generate the key

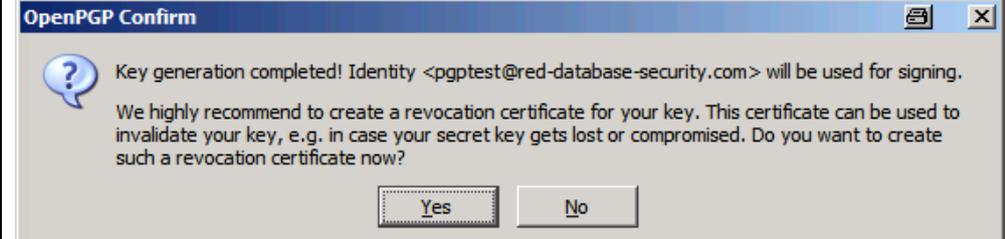
 <p>The screenshot shows the 'OpenPGP Confirm' dialog box. It contains a question mark icon and the text: 'Generate public and private keys for 'PGP_Test Account (Testkey) <pgptest@red-database-security.com>?''. There are 'Yes' and 'No' buttons.</p>	<p>Generate the key</p>
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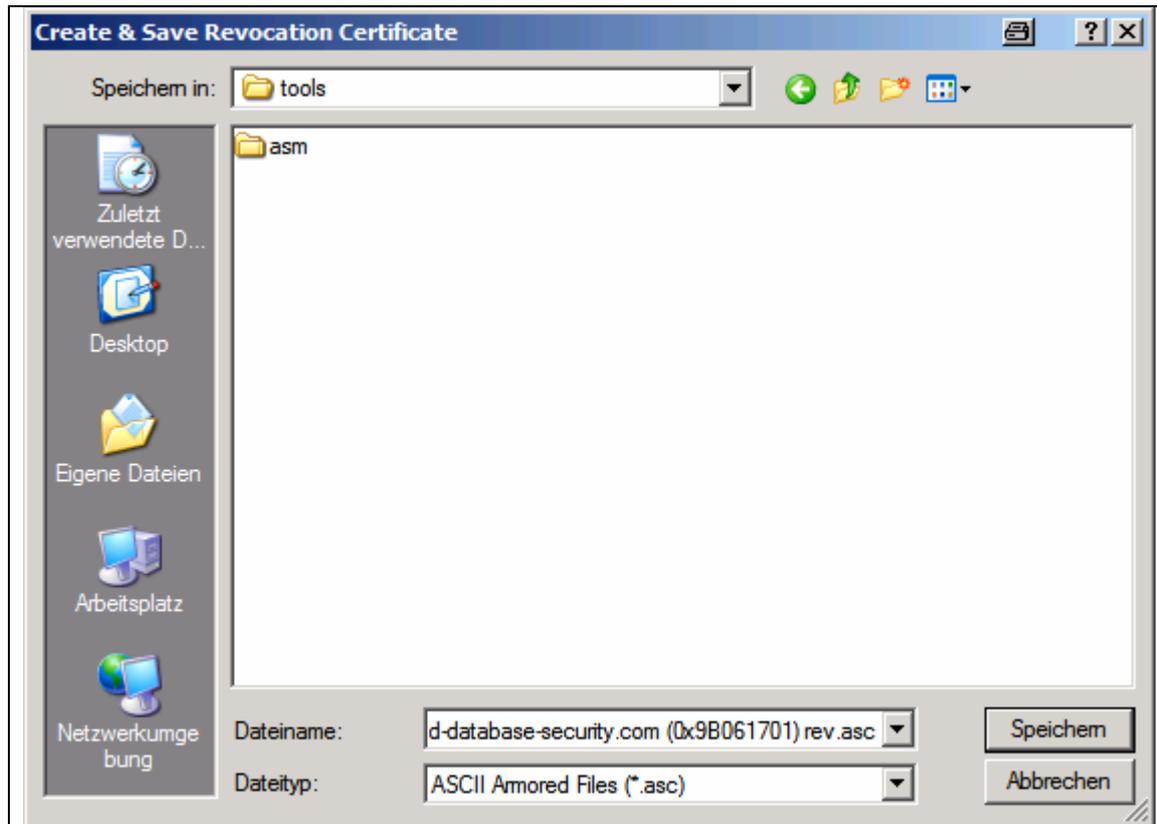
36. Key will be generated

	Key will be generated...
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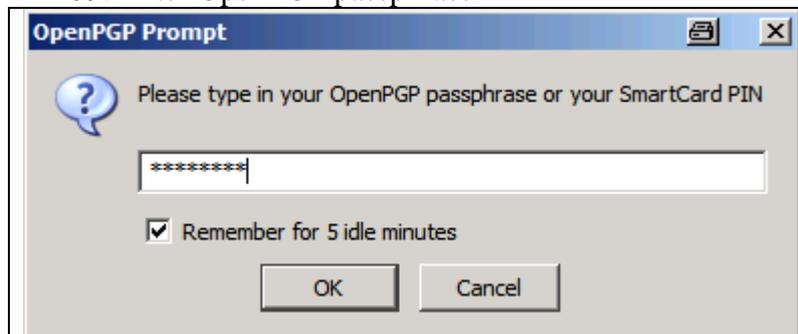
37. Key Generation completed

	Create revocation certificate
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38. Create and Save Revocation Certificate

	<p>Create and Save Revocation Certificate</p>
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39. Enter OpenPGP passphrase

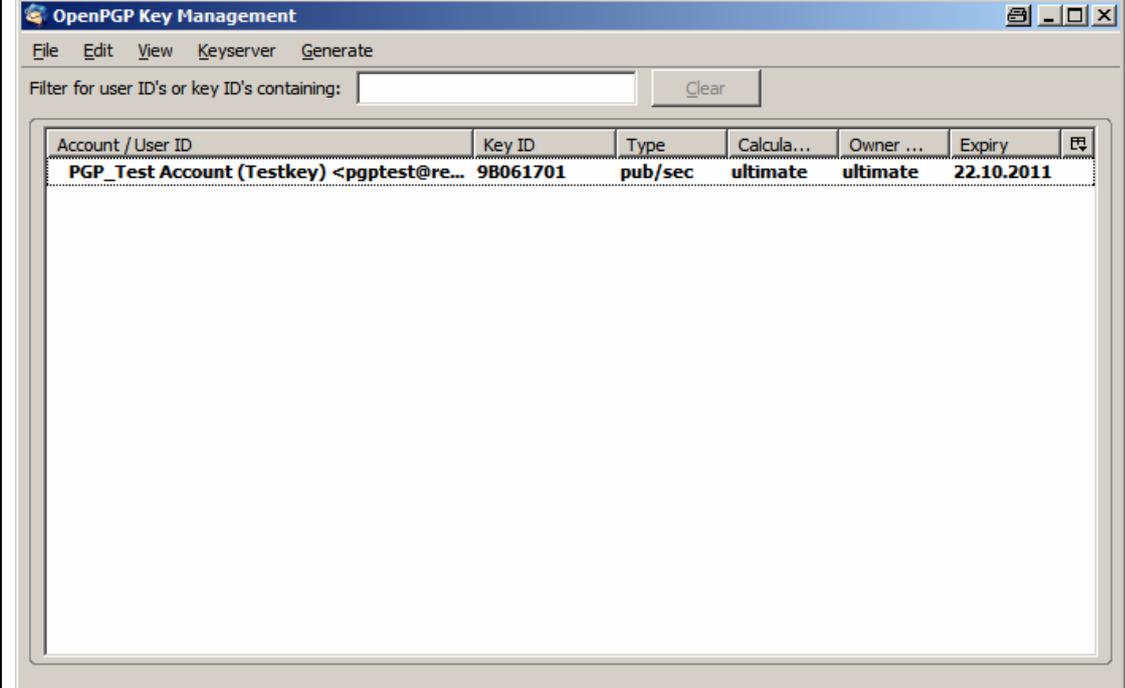
	<p>Enter OpenPGP passphrase</p>
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40. Revocation certificate created

	<p>Revocation certificate created</p>
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41. Key generated

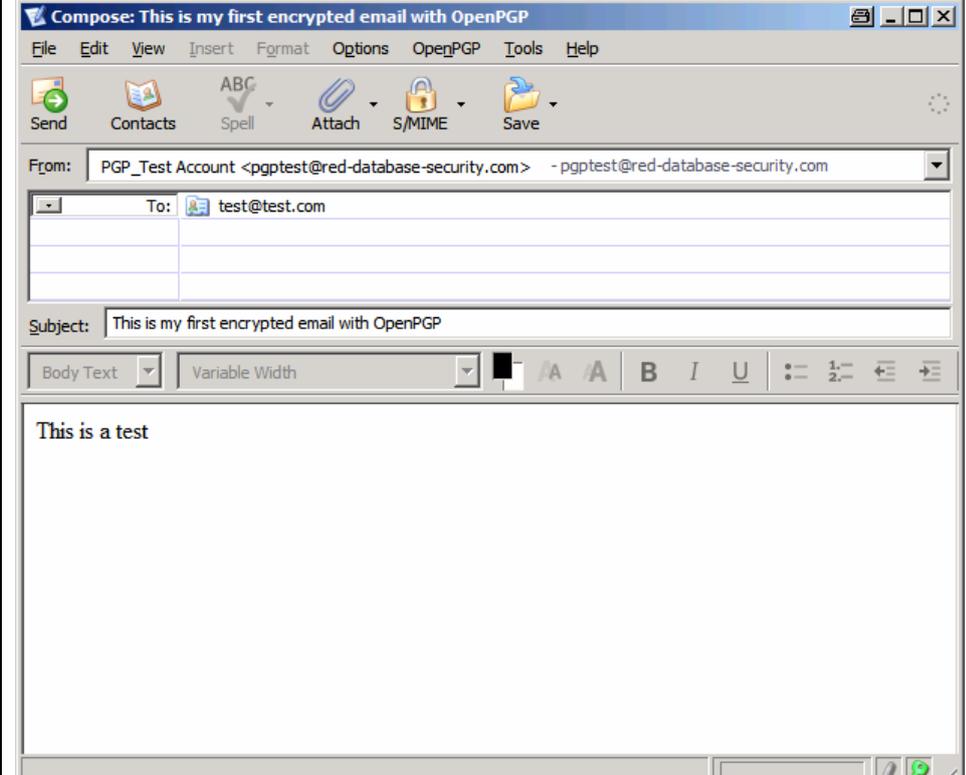


The screenshot shows the 'OpenPGP Key Management' application window. It has a menu bar with 'File', 'Edit', 'View', 'Keyserver', and 'Generate'. Below the menu is a search filter: 'Filter for user ID's or key ID's containing:' followed by an empty text box and a 'Clear' button. The main area contains a table with the following data:

Account / User ID	Key ID	Type	Calcula...	Owner ...	Expiry	
PGP_Test Account (Testkey) <pgptest@re...	9B061701	pub/sec	ultimate	ultimate	22.10.2011	

The Key is now generated

42. Create an email



The screenshot shows the 'Compose: This is my first encrypted email with OpenPGP' window. The menu bar includes 'File', 'Edit', 'View', 'Insert', 'Format', 'Options', 'OpenPGP', 'Tools', and 'Help'. The toolbar contains icons for 'Send', 'Contacts', 'Spell', 'Attach', 'S/MIME', and 'Save'. The email fields are filled as follows:

- From: PGP_Test Account <pgptest@red-database-security.com> - pgptest@red-database-security.com
- To: test@test.com
- Subject: This is my first encrypted email with OpenPGP
- Body: This is a test

Create an email

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43. Choose OpenPGP – Encrypt Message and click on send

OpenPGP Key Selection

Recipients not valid, not trusted or not found
test@test.com

Select Recipients for Encryption

<input checked="" type="checkbox"/>	Account / User ID	Trust	Expiry	Key ID
<input checked="" type="checkbox"/>	PGP_Test Account (Testkey) <pgptest@red-database-security.com>	ultimate	22.10.2011	98061701

Send mail unencrypted and not signed
 Do not display this dialog again if encryption is not possible

Choose Recipients for Encryption and click OK.

44. If you are using HTML email you are getting this warning

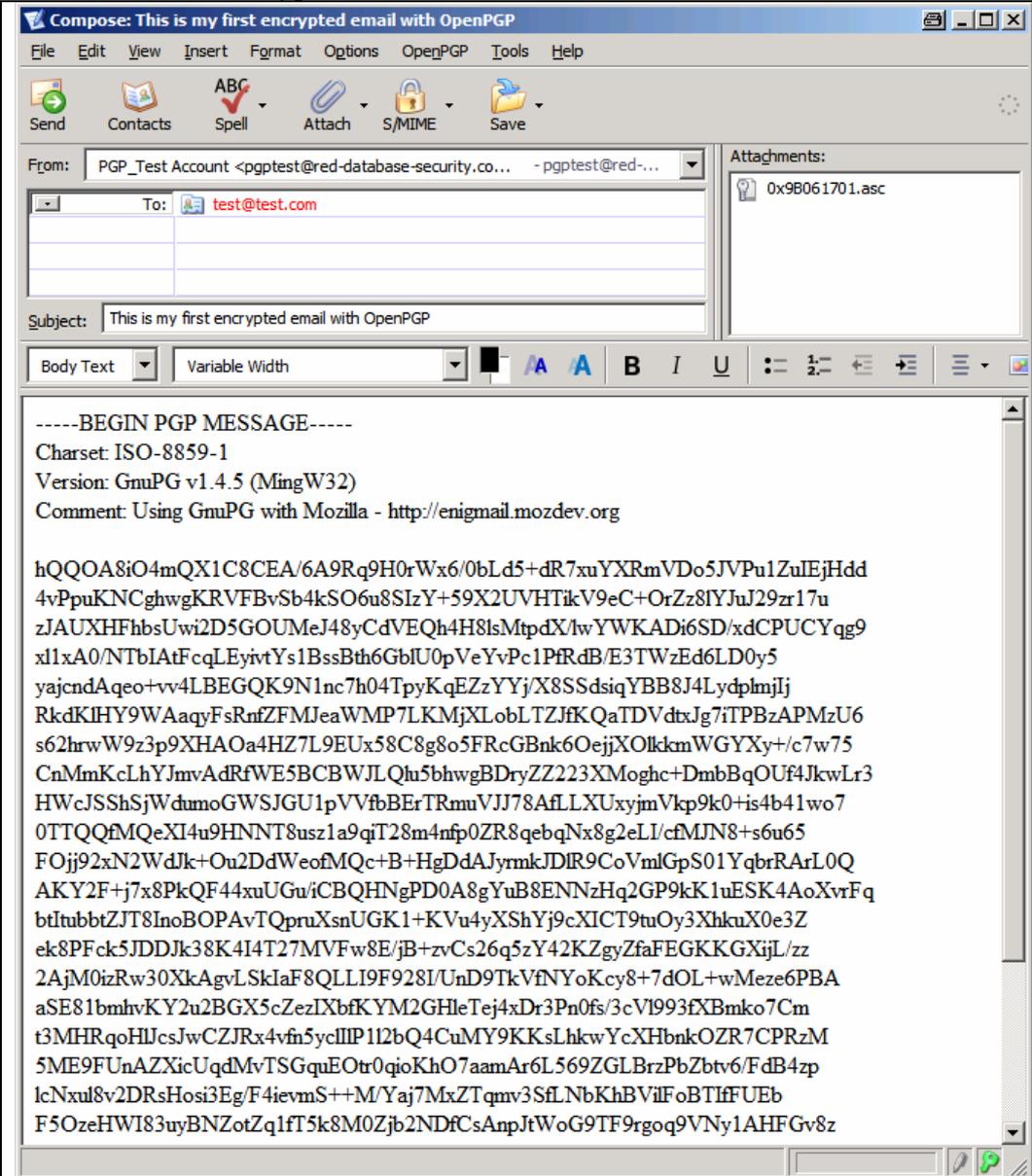
OpenPGP Alert

 **HTML mail warning:**
This message may contain HTML, which could cause signing/encryption to fail. To avoid this in the future, you should press the SHIFT key when clicking on the Compose/Reply button to send signed mail.
If you sign mail by default, you should uncheck the 'Compose Messages in HTML' preference box to permanently disable HTML mail for this mail account.
This alert will repeat 1 more time.

Skip

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45. Send the encrypted email



Choose your language

That's it ...

Related Links:

Download GNUPG:

<http://www.gnupg.org/download/index.html#auto-ref-1>

Download Mozilla Thunderbird:

<http://www.mozilla.com/en-US/thunderbird/>

Download Enigmail Extension for Thunderbird:

<https://addons.mozilla.org/thunderbird/71/>

About Red-Database Security GmbH:

Red-Database-Security GmbH is a specialist in Oracle Security. We are offerings Oracle security trainings, database and application server audits, penetration tests, oracle (security) architecture reviews and software security solutions against Oracle rootkits.

Contact:

If you have questions or comments you could contact us via

info at red-database-security.com