

Email @ ICTP and more

ICTS Webinar,
December 10, 2020

Overview

- General information
- Basic email security
- Some usage tips
- Solutions for common email problems at ICTP

General Information

Types of ICTP email addresses

- Individual email accounts (+ Aliases)
 - username@ictp.it
 - firstname.lastname@ictp.it
- Shared email folders (for offices and services)
 - e.g. ictsoffice@ictp.it
- Mailing lists (for targeting groups)
 - E.g. ictp-announcements@lists.ictp.it

Shared email folders & Mailing lists are not subject to same limits as individual email accounts

What should I use if I need to ...?

- Communicate as myself with colleagues and external collaborators:
 - Email account
- Represent an office:
 - Shared email folder
- Send to many persons:
 - Mailing list
 - (Requests to create (or delete) a mailing list should be sent to helpdesk)
- Have a forum for discussions:
 - Mailing list

Who can request an address?

- **Email account:** staff via Personnel Office and visitors via Sigma
 - Only for persons who are going to be present on the campus;
 - Scientists can put in a request for their collaborators.
- **Alias:** for your individual mailbox, you can ask for an alias related to your name
 - The messages will arrive to your inbox, no matter which alias is used
- **Shared email folder:** Head/supervisor of office, research group, and other organizational units
- **Mailing list:** individuals and groups/offices
 - (you will be required to provide some indication about the duration)

Tip: Each office/group should keep an overview of what shared folders and mailing lists they have and who is handling them (to avoid duplicates, collisions and orphans)

Shared email folders

- Email Shared Folders don't need passwords; **access is granted** to users
- read and managed by **multiple** users concurrently

Tip: remember that you do not have to give your password to any other user who needs to access the shared folder

Every person has only single account (username/password)

Shared email folder user setup

After access is granted:

- **subscribe** to the new shared folder;
 - Done once and effective for all mail clients (Thunderbird, Webmail, etc.)
- setup the **identity** (outgoing address) for sending e-mails.
 - Needs to be done for every mail client except Webmail

VIDEO

Mailing lists

- Two types of behaviour:
 - “Distribution” list (one-to-many)
 - “Discussion” list (every member is allowed to post, moderation option)
- Some features:
 - Lists allow people to self un-subscribe and is GDPR compliant;
 - Lists can be configured to allow people to self-subscribe
 - Messages can be indexed and archived on the web
 - Managing your list is self-service...

Limitations: Number of outgoing emails

To protect against abuse (for spamming etc.) through hacked accounts:

- There is a limit on how many messages an individual email account sends per day.
- This limit is stricter when you are working from a computer that is outside the ICTP.
- If you need to address a large group of people, consider using a mailing list

Limitations: Disk Space

- For each individual mail account there is a quota limit.
- You can keep quota usage low by avoiding to share files via email attachments. Use other services instead, like <https://dbox.ictp.it/> (see webinar “ICTP Cloud Storage”).
- When getting closer to quota limit, consider deleting old messages with attachments
- Contact us when you reach 95%. Reaching 100% should be avoided because it would keep new messages in the waiting loop.

Limitations: Message Size

- There is no universal size limit for emails, each mail server has its own policy
- The limit at the ICTP is approximately 35 MB per message.
- To share large files, use <https://dbox.ictp.it/> or similar sharing services.

Email: institutional vs. public services

- ICTP is running the Email service in-house, because of privacy concerns; free email services like Gmail, Yahoo Mail, etc. should not be used for work;
- Remember that work email belongs to the organization; forwarding all your ICTP email to free email services is discouraged;
- When you are leaving the ICTP, your account will be closed and the email address will become invalid;
- It is easy to configure any mail client (including smartphones) to access both your ICTP and personal mail accounts.

Basic Email Security

Types of malicious emails

- Spam
Mass mail advertising products etc.: annoying but harmless
- Phishing attempts
Messages trying to trick you into revealing your login details
- Ransomware
Executable attachments encrypting files on your computer
- Other frauds
More elaborate and “personalized” fraud attempts

Telling authentic messages from false ones

The correspondence was initiated by you

Content, style, and sender address are as usual

From the message text it is clear the sender knows more about you than just what is visible in the Internet

⚠ The message content is unusual

⚠ The sender address is unusual (e.g. not @ictp.it from supposed ICTP sender)

⚠ The content is alarming or asking for urgent action (follow a link to log in or open an attachment, etc.)

⚠ There is little real information provided

If in doubt, contact the helpdesk (not through link in email!) before taking any action

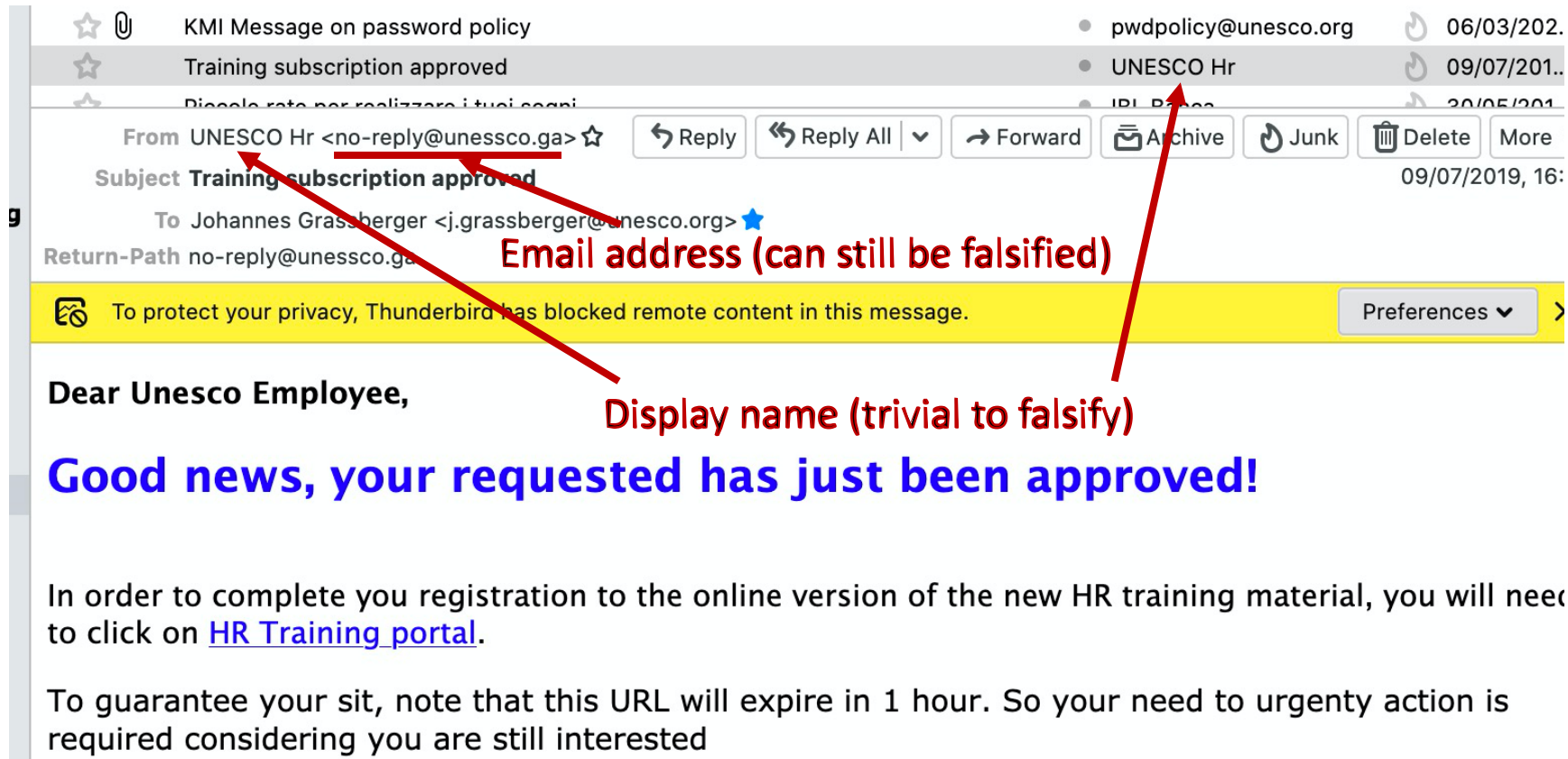
Security Tips

- Don't trust the name displayed in the “**From:**” header
- Don't trust included links
- Don't trust attachments

Who sent the message?

- Emails contain two items referring to the sender:
 - The familiar **From:** line
 - The envelope sender address seen as **Return-Path:** (normally not shown)
- The information in the **From:** header is **not** authoritative
- Check the **Return-Path:** to find out whether the message came from @ictp.it
- Use Thunderbird's **View > Message Source** menu to see the Return-Path value of a message (first line of message source).
- Even if a message was sent from an ICTP account, it could have been a hacker who managed to obtain the credentials
- If in doubt, contact Helpdesk

Security tips: Verifying sender



The screenshot shows an email client interface with a list of emails at the top. The selected email is from 'UNESCO Hr' with the subject 'Training subscription approved'. The sender's email address is '<no-reply@unessco.ga>'. A red arrow points from the text 'Email address (can still be falsified)' to the email address. Another red arrow points from the text 'Display name (trivial to falsify)' to the sender's name 'UNESCO Hr'. Below the email header, there is a yellow warning bar that says 'To protect your privacy, Thunderbird has blocked remote content in this message.' The main body of the email starts with 'Dear Unesco Employee,' followed by 'Good news, your requested has just been approved!' in blue text. Below this, there is a paragraph of text: 'In order to complete you registration to the online version of the new HR training material, you will need to click on [HR Training portal](#).' and another paragraph: 'To guarantee your sit, note that this URL will expire in 1 hour. So your need to urgency action is required considering you are still interested'.

From UNESCO Hr <no-reply@unessco.ga> ☆

Subject Training subscription approved

To Johannes Grassberger <j.grassberger@unesco.org> ☆

Return-Path no-reply@unessco.ga

To protect your privacy, Thunderbird has blocked remote content in this message. Preferences >

Dear Unesco Employee,

Good news, your requested has just been approved!

In order to complete you registration to the online version of the new HR training material, you will need to click on [HR Training portal](#).

To guarantee your sit, note that this URL will expire in 1 hour. So your need to urgency action is required considering you are still interested

VIDEO

Security tips: Verifying embedded links

The screenshot shows an email client interface. On the left is a sidebar with folders like 'sent-mail...2003 (68)', 'sent-mail...2004 (50)', etc. The main area displays an email from 'E-mail Administrator <info@everythingengrable.com>' with the subject 'Scan your mailbox grassberger@ictp.trieste.it'. The email body contains a blue 'Virus Alert!!!' box with the text: 'Dear grassberger@ictp.trieste.it, Virus activities have been detected in your email account.' Below this, it says 'To keep your account safe, please follow the URL below to run a quick email scan.' and includes a blue link: 'Click here to scan grassberger@ictp.trieste.it now!'. A 'Note' follows: 'If you ignore this notice, your account will be suspended without further notice to protect further damage.' At the bottom, a URL is shown: 'https://www.kaiangroup.com/vrd?t=1&email=grassberger@ictp.trieste.it'. Red arrows point from the link and the URL to explanatory text on the right.

Without clicking,
move mouse over link

Check actual URL

Security tips: Checking attachments

From Lily L.B <sales@jamtrading.com> ☆

Subject Invoice attached (Balance Payment)

14/06/2018, 09:47

To undisclosed-recipients;; ☆

Hello,

I instructed our account officer to wire the outstanding amount into your Bank Account as balance payment of our goods.

I attach the copy of your Invoice in this email, please check to confirm the Bank Account to avoid transfer error. Please note that this demand is **urgent** and your early reply will be highly appreciated.

Thanks & Best regards

Lily L.B
Account Dept.

> 📎 1 attachment: 0041477749_0666_119_2018-06-14-12_21_10.jar 596 KB

📄 Save ▼

Unusual file type!



Security tips: Checking attachments

From Lily L. B. <sales@iamtrading.com> ☆



Security tips: File types

Typical file attachments (usually safe):

- PDF documents (.pdf)
- Office documents (.txt, .docx, .xlsx, .pptx)
- Images and videos (.jpg, .png, .mp4, .mkv, .mov)

Dangerous file types

- Executable files (.exe, .jar, .vbs, .ws, .bat, .cmd)

Potentially dangerous files

- Archives (.zip, .tar, .tgz, .rar)
 - Contain other files which could be dangerous

Anti-spam measures

- There is no **100%** safe method for keeping out spam
- ICTP mail server applies
 - Heuristic filtering (false positives)
 - Internet blacklists
 - Messages our server classifies as **spam** are tagged and redirected into your spam folder
 - Limit on number of outgoing messages
- You can help by:
 - Use a **safe password** to avoid becoming a spammer;
 - **Never share** your password with anyone!

Some Usage tips

Password security

- Using a secure password is not only in your interest but also for the whole ICTP
- If you fell for a phishing attempt, change your password immediately
- When you register at a site (online shop, newspaper, etc.), do not use the same password that you use for your mail address.
If that site gets breached, the hackers will have access to your email account.

Accessing ICTP Mail

- **Thunderbird** (fully supported):
 - To set up for ICTP, you only have to specify your name, email address and password
- **Webmail** (<https://webmail.ictp.it/>)
- **Other** email clients (supported on best-effort basis):

IMAP:	imap.ictp.it	port 993	SSL
SMTP:	smtp.ictp.it	port 487	STARTTLS

Using multiple clients

- You can access your mail from different computers (e.g. desktop, laptop) or using different clients (e.g. Thunderbird, Webmail)
- For best results, use the same setup options:
 - Display name
 - Signature (optional)
 - Folder for copies of sent mail
(Webmail uses the folder named **sent-mail** in personal mailbox and **sent** in shared folders)

Setting up Thunderbird

VIDEO

About Webmail

<https://webmail.ictp.it/>

- Immediate use (no need to install or configure software) from anywhere
- Direct view from IMAP server
- Can see all aliases immediately (From)
- Can **subscribe** to folders
- Supports shared email folders **correctly**

Tips for Thunderbird

- View only folders marked as **favorite**
- Show also unsubscribed folders
- Avoid **moving** folders (accidentally or on purpose)
- Managing identities

Thunderbird: Favorite folders

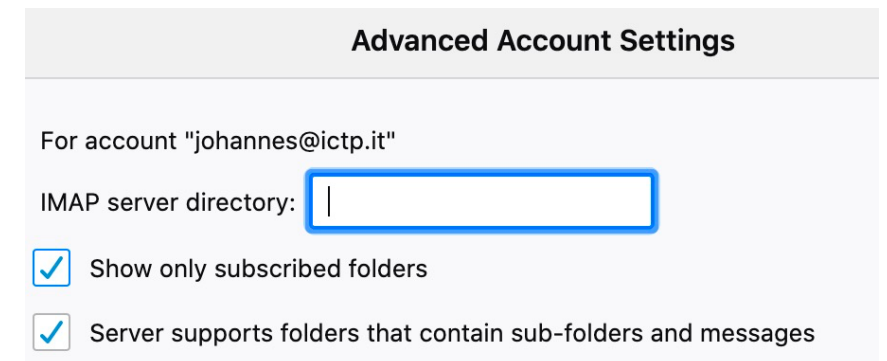
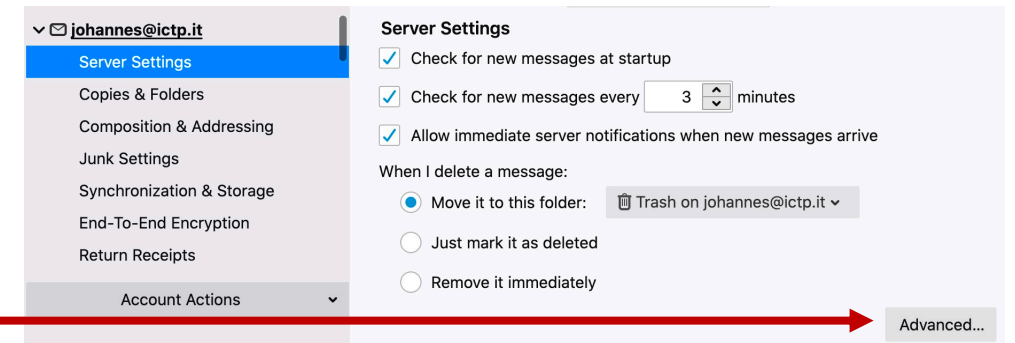
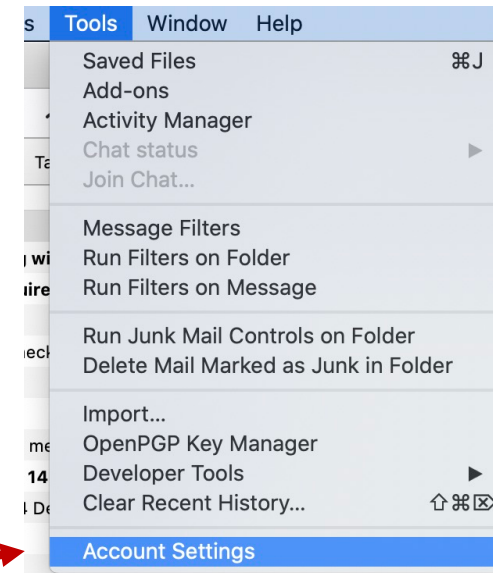
- You can mark a few folders as “favorite”. Typical candidates would be the folders where your email arrives (personal and shared) and where copies of sent messages are stored
- You can then tell Thunderbird to show only these folders, obtaining a compact view

VIDEO

Show ALL folders

You can configure Thunderbird to show all folders, even those you are not subscribed to:

1. Open the menu item **Account Settings**
2. In the list, select **Server Settings**
3. Press the **Advanced...** button
4. Uncheck the box **Show only subscribed folders**



Prevent folder drag and drop

- In Thunderbird it's (too) easy to move a folder, via drag-and-drop in the folder list
- This often happens by accident, when the user wants to open a folder, but the mouse moves before the button is released
- This can be prevented by a Thunderbird extension named `Disable DragAndDrop`
- It can be easier to find a misplaced folder after configuring Thunderbird to show all folders, not only subscribed ones

[VIDEO](#)

Managing identities

- Following initial Thunderbird setup, you have a single email address configured
- As you may have access to additional addresses (aliases or shared folders), you can add corresponding **identities**.
- For every identity, you define
 - Your display name (own name, or office name for shared folder)
 - Email address
 - Signature (optional)
 - Folder for sent messages, etc.

Posting to mailing lists

- Avoid multiple recipients together with mailing list
- Message size limit for mailing list
- Not authorized to post?

Solutions for common email problems at ICTP

Troubleshooting email problems

Before contacting the Helpdesk, you can

- check whether both **Webmail** and Thunderbird are giving the same problem
- Check Thunderbird's **Activity Manager** for clues

You can use <https://icts.ictp.it/help> to notify us

Please read and report the precise error message you see.

Problems can be

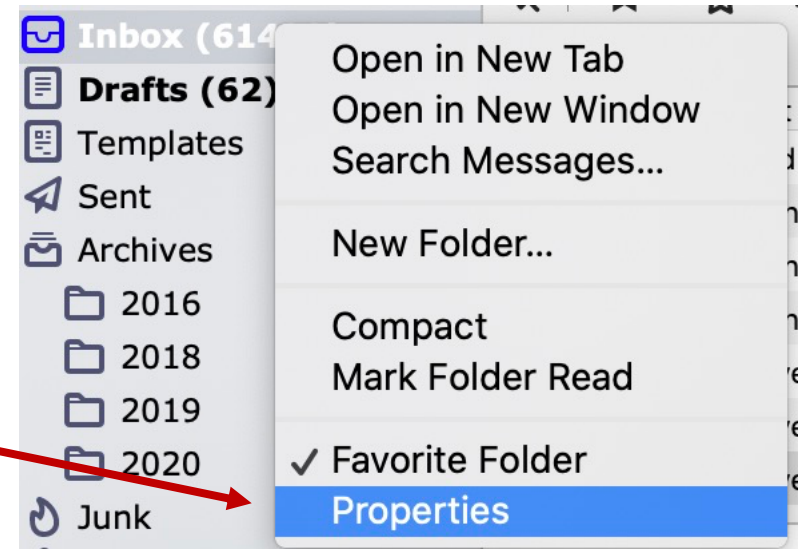
Located on the server or the client (laptop/desktop)

Affecting all users or only a few or a single one

Fixing Thunderbird index files

If Thunderbird doesn't show all messages:

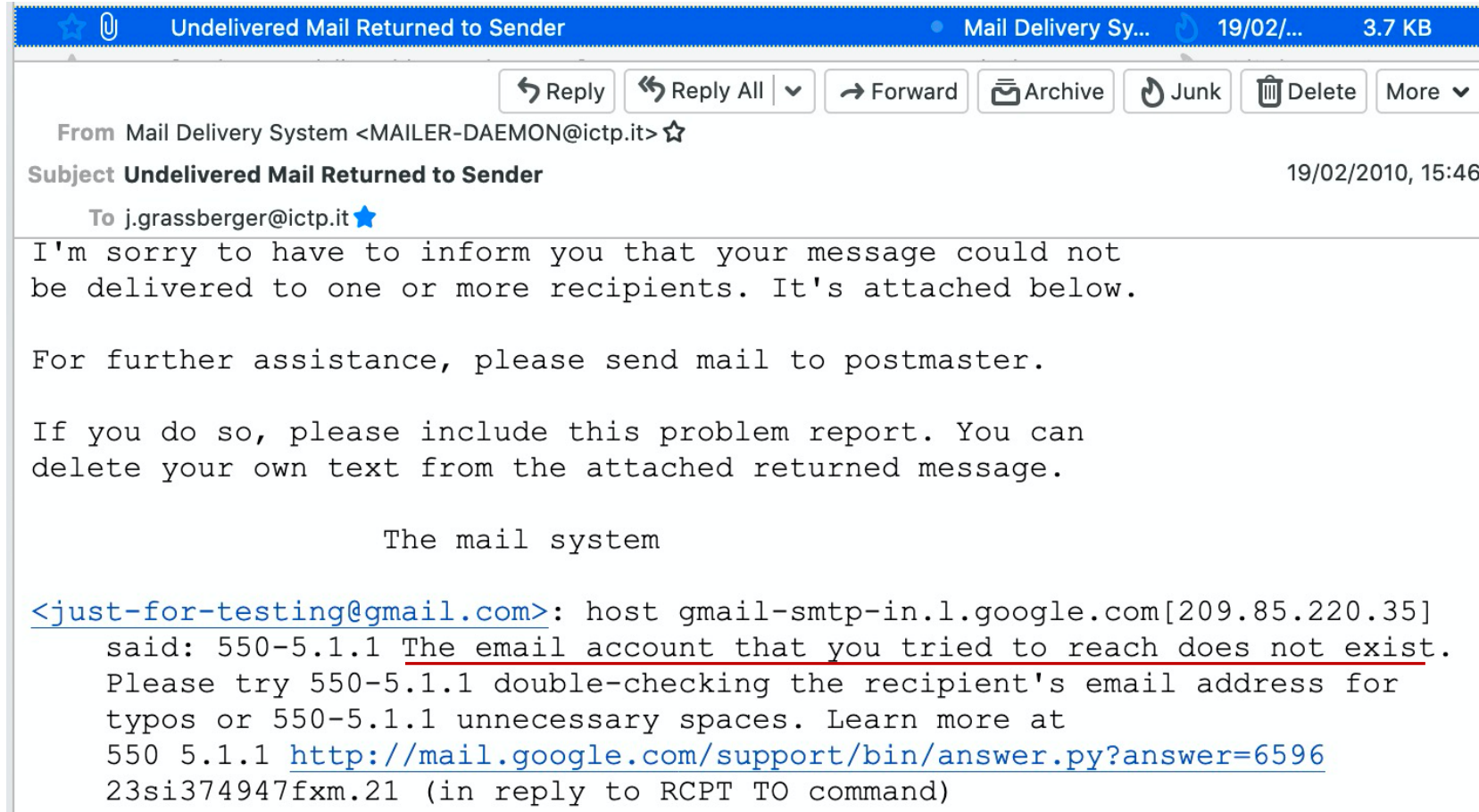
1. Right-click (or two-finger-click) on folder name
2. Choose **Properties**
3. Press **Repair folder** button



Sometimes the folder index (.msf) file becomes damaged and messages may appear missing or deleted messages continue showing; repairing the folder may fix these issues.

Repair Folder

Checking and reporting error messages



The screenshot shows an email client interface. At the top, a blue header bar contains the text "Undelivered Mail Returned to Sender" on the left and "Mail Delivery Sy...", "19/02/...", and "3.7 KB" on the right. Below the header is a toolbar with buttons for "Reply", "Reply All", "Forward", "Archive", "Junk", "Delete", and "More". The email content area shows the following details:

From Mail Delivery System <MAILER-DAEMON@ictp.it> ☆
Subject Undelivered Mail Returned to Sender 19/02/2010, 15:46
To j.grassberger@ictp.it ☆

I'm sorry to have to inform you that your message could not be delivered to one or more recipients. It's attached below.

For further assistance, please send mail to postmaster.

If you do so, please include this problem report. You can delete your own text from the attached returned message.

The mail system

```
<just-for-testing@gmail.com>: host gmail-smtp-in.1.google.com[209.85.220.35]
said: 550-5.1.1 The email account that you tried to reach does not exist.
Please try 550-5.1.1 double-checking the recipient's email address for
typos or 550-5.1.1 unnecessary spaces. Learn more at
550 5.1.1 http://mail.google.com/support/bin/answer.py?answer=6596
23si374947fxm.21 (in reply to RCPT TO command)
```


Mistyped email addresses

Can you see the typos?



Alert

An error occurred while sending mail. The mail server responded:
450 4.1.2 <johannes@itcp.it>: Recipient address rejected:
Domain not found.
Please check the message recipient "johannes@itcp.it"
and try again.

OK

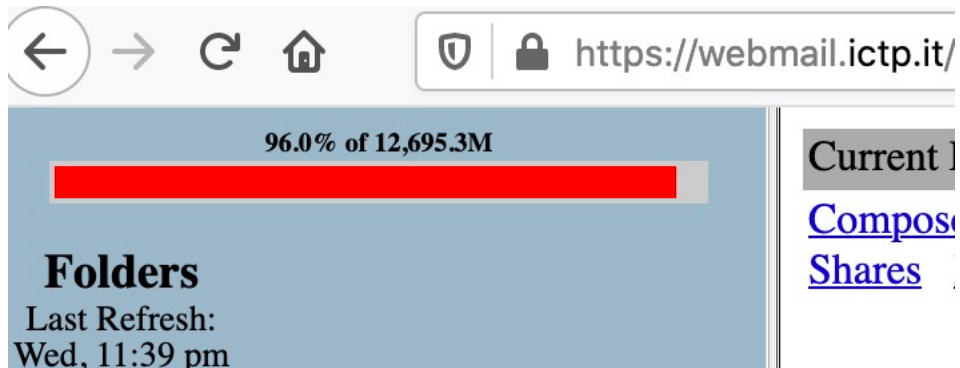
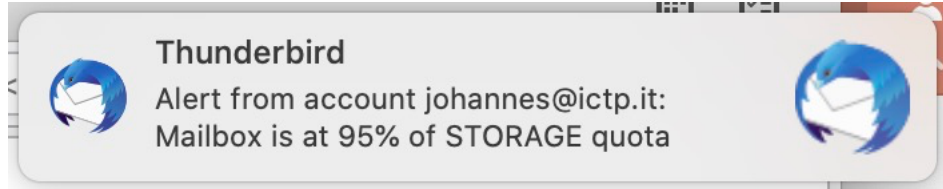


Alert

An error occurred while sending mail. The mail server responded:
550 5.1.1 <johanness@ictp.it>: Recipient address
rejected: User unknown in virtual alias table.
Please check the message recipient "johanness@ictp.it"
and try again.

OK

Troubleshooting: Quota limit



- When your quota usage exceeds 90%, consider cleaning up by removing older messages (with attachments)
- You can sort your messages by size to find the biggest ones immediately
- Contact help desk if necessary, in particular when approaching 100%

Error: Too many ...

- ... recipients in a single message
 - Reduce number of recipients or
 - split into batches
 - use a mailing list
- ... total messages sent per minute/hour/day
 - Wait or contact Helpdesk if you absolutely must send all these messages

Error: Message is blocked ...

- ... if one of the recipient addresses cannot be verified
 - Check and correct address spelling
 - Note a single wrong address will block sending to all recipients

- ... because a part of your text triggers our phishing alarm
 - Contact Helpdesk

How to set a Forwarding and Vacation Messages

- Setting auto-responder/vacation messages
 - For a personal account, use the web interface:
 - Vacation message: https://icts.ictp.it/vacation_form
 - For a shared folder, activate and deactivate vacation messages by sending mail from the office address to the special autoresponder address
 - Example for an office account ictsoffice@ictp.it

From: ictsoffice@ictp.it

To: autoresponse+ictsoffice@ictp.it

Subject: Closed fort the holidays

The ICTS Office of the ICTS is closed for the Christmas holidays.....

We shall be back...

- Forwarding ONLY for individual email accounts: <https://imap.ictp.it/cgi-bin/websieve.pl>

References

- Webmail: <https://webmail.ictp.it/>
- Forward & Vacation: [https://icts.ictp.it/forward form](https://icts.ictp.it/forward_form)
- Setup instructions: <https://icts.ictp.it/howto/email.html>
- How to change password: [https://icts.ictp.it/password form](https://icts.ictp.it/password_form)
- Ticket page: <https://icts.ictp.it/help>
- Technical background: <https://en.wikipedia.org/wiki/Email>
- Email etiquette:
[https://en.wikipedia.org/wiki/Etiquette in technology#Netiquette](https://en.wikipedia.org/wiki/Etiquette_in_technology#Netiquette)

Q&A

BONUS SLIDES

IMAP server

- Messages are kept on server, in several folders
- With IMAP, you can “subscribe” and “unsubscribe” to folders in order to **see** them or keep them **hidden**.
- When you are given access to a **shared email folder**, or when someone else creates a subfolder, you have to subscribe to it before you can see it
- The status for each folder is stored on the server. If you subscribe to a folder from one place (Webmail, Thunderbird) it will be visible from all others.
- However, in Thunderbird there is a setting that allows you to **see all folders**, no matter whether you are subscribed or not.

Servers at the ICTP

