

Security and risk management



Session #2: Communications must be handled with care

2025





Digital security? I don't know anything about that!

Let's think about how to protect ourselves
in digital media

Digital security and risk analysis

Introduction to Digital Security for Non-Governmental Organizations (NGOs) and Human Rights Defenders

Understand the digital environment, the actors involved, and the threats we face in it.

1

Digital best practices

Build an improvement plan that includes best practices and usage commitments.

3

Communications must be protected

Decide which tools to use and how to configure them to improve security and privacy.

2

Session #2: We must take care with communications

Objectives

- ✓ Balance the need to communicate with the security of your NGO.
- ✓ Configure privacy and security settings in the tools we use.
- ✓ We will analyze tools to determine our best option for internal and external communications.



**Cell phones and the internet
have made communication
easier than ever, but they also
facilitate surveillance.**



1. The information lifecycle

The life cycle of information

Digital messages are created, transmitted, stored, and deleted.

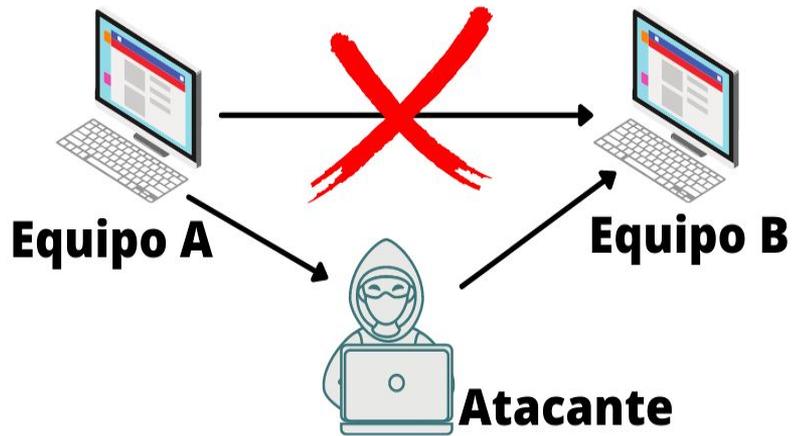
To protect communication, it must be protected throughout its entire life cycle.

- When it is created, that is, we must protect the devices and applications with which we generate messages.
- When it is transmitted, i.e., we must protect the information as it travels between devices, between the sender and the receiver.
- When it is stored, i.e., we must protect the information in the places where it is recorded, on our devices, but also on the servers of the providers who offer us the service we use to communicate.
- Finally, we must also ensure that if we delete a message, it cannot be recovered.



Attacks by the person in the middle

Every call, text message, email, text chat, audio or video chat, and social media message can be vulnerable to an attacker if they can intercept the communication.



If the communication is compromised, it is possible **to read, block, delete, or modify** the messages. It is also possible to impersonate the sender or recipient.

Activity 1

Some cases of surveillance of NGOs

What happened in this news story?

Escudodigital

The author of twin cyber attacks on airports' wifi was arrested.

correos de los viajeros.

Do you use the airport Wi-Fi? You could be a victim of fraud.

1 de julio de 2024



Activity 1

Some cases of surveillance of NGOs

What type of attack do we recognize?

REMINDER

Frequent attacks

How our adversaries operate

- Phishing
- Exploitation of vulnerabilities
- Doxxing
- Spyware
- Blackmail
- Online harassment
- Online threats
- Technology-facilitated gender-based violence

Activity 1

Some cases of surveillance of NGOs

Do we recognize any vulnerabilities that facilitated the attack?

REMINDER

Vulnerabilities

Some activities that put us at risk

- Using weak passwords
- Not locking devices
- Not using 2FA
- Opening unknown attachments
- Not having a backup copy
- Not updating software
- Using public networks
- Using insecure communication apps

Activity 1

Some cases of surveillance of NGOs

Can you think of any best practices that could have mitigated the attack?

REMINDER

Good Practices

Activities that balance the scale

- Use unique and strong passwords
- Protect devices with startup passwords
- Use 2FA on all accounts
- Be cautious with unknown attachments
- Back up data periodically
- Configure your privacy settings
- Keep software up to date
- Encrypt everything you can
- Use only trusted networks
- Use secure communication applications



2. Protect communications

Protecting communications



Encryption, encryption, ENCRYPTION!!!!

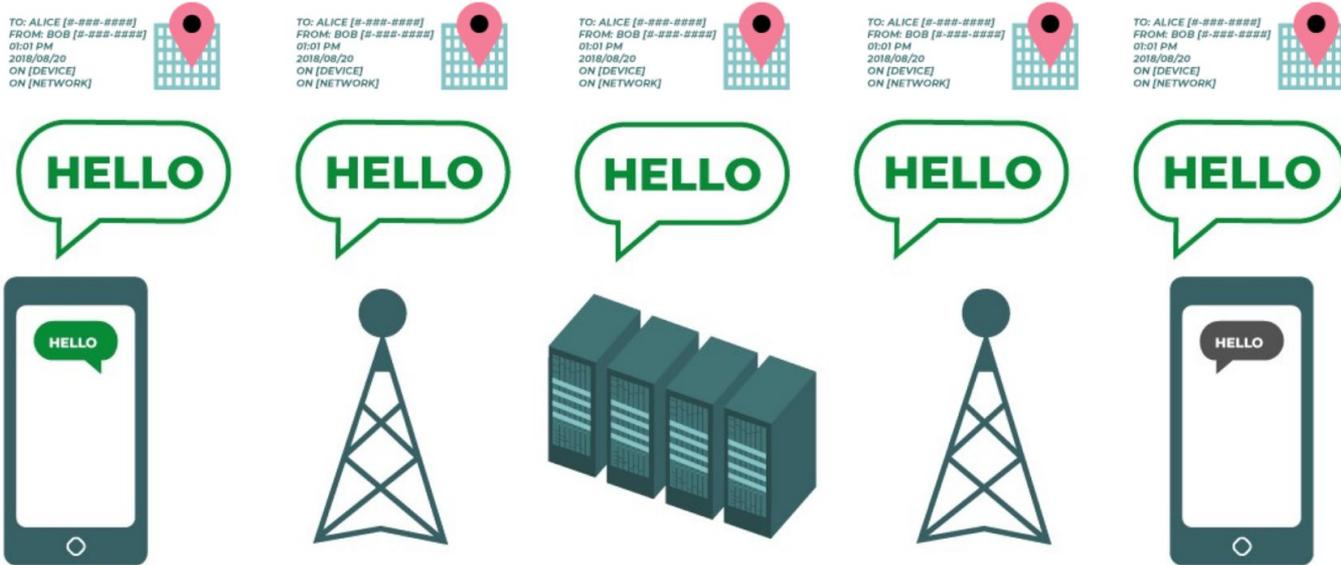
The best way we have to protect information when it is in transit or stored on any device is through encryption.

Encryption is a process that takes information and makes it unreadable except to the person who knows how to reverse the process. In digital technology, it involves a method (which defines the specific process to be performed) and a key or secret (known to the person sending or receiving the communication, or who stores it) that allows it to be decrypted.

To communicate securely, we must choose applications that integrate end-to-end encryption.

To protect the information we are going to store, we should use encrypted devices or encrypt the information.

No encryption



Transport layer encryption

TO: ALICE [0-###-####]
FROM: BOB [0-###-####]
01:01 PM
2018/08/20
ON [DEVICE]
ON [NETWORK]



HELLO



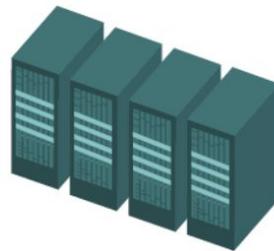
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HELLO



TO: ALICE [0-###-####]
FROM: BOB [0-###-####]
01:01 PM
2018/08/20
ON [DEVICE]
ON [NETWORK]



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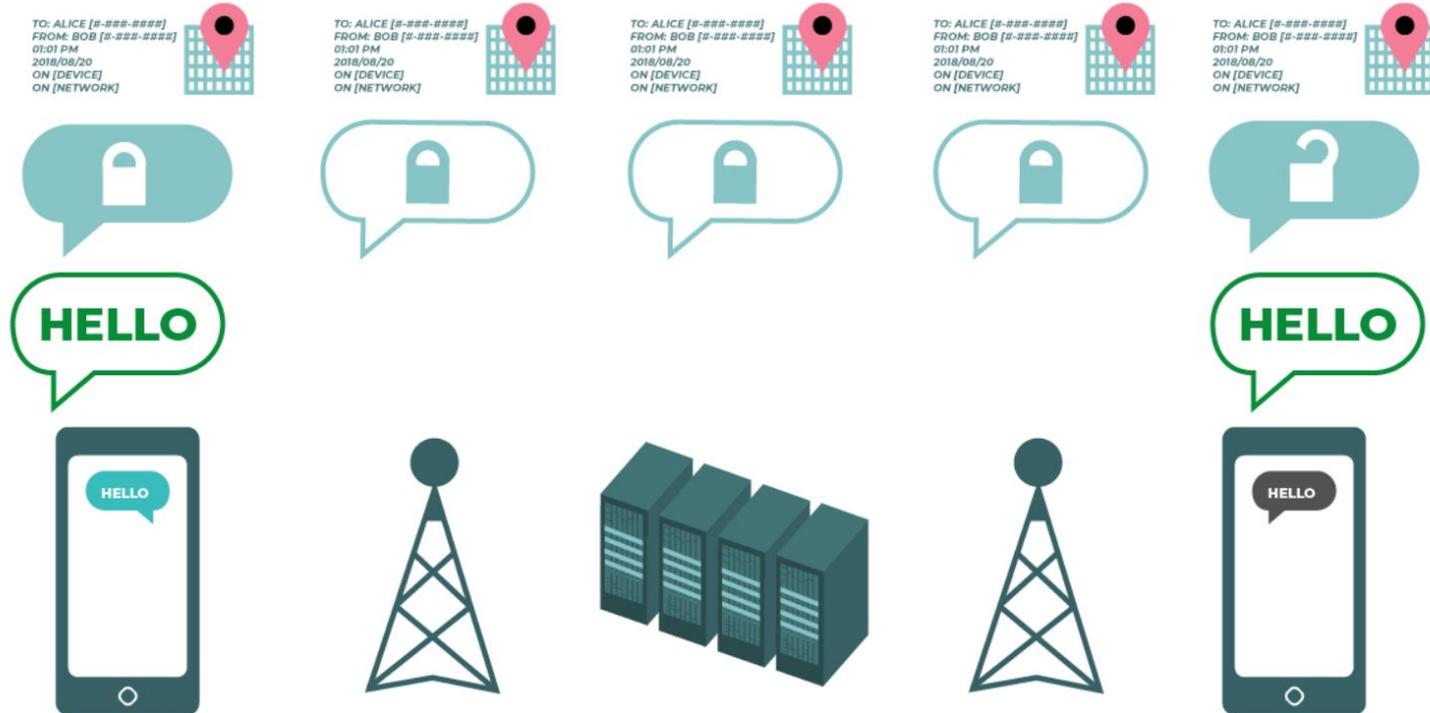
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ON [DEVICE]
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HELLO



End-to-end encryption



Activity 2

Let's identify types of communication



Unencrypted



Transport layer



End-to-end



3. Improving our communications

The key is in the settings

WhatsApp

- Account
 - ◆ Passwords
 - ◆ Email address
 - ◆ Two-step verification
 - ◆ Add an account
- Privacy
 - ◆ Groups
 - ◆ App blocking
 - ◆ Advanced
- Chats
 - ◆ Backup
 - ◆ Chat history



Settings

☆ Starred >

📱 Linked devices >

🔑 Account >

🔒 Privacy >

💬 Chats >

📧 Notifications >

↕ Storage and data >

🔍 Help and feedback >

👤 Invite a friend >

Also from Meta



Meta AI App



Instagram



Facebook



Threads



Updates



Calls

19



Communities



Chats



Settings

Account

🔒 Security notifications >

🔒 Two-step verification >

✉ Email address >

🔑 Passkeys >

📞 Change phone number >

📄 Request account info >

🗑 Delete my account >



Updates



Calls

19



Communities



Chats



Settings

Passkeys



Manage your passkey

Access WhatsApp the same way you unlock your phone: with Face ID, Touch ID, or your device passcode.

Your passkey is safely stored in your password manager. [Learn more](#)

👤 iCloud Keychain
Created Dec 14, 2024 ...

Passkeys

Settings

- ☆ Starred >
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- 💬 Chats >
- 📄 Notifications >
- ↕ Storage and data >
- 🔍 Help and feedback >
- 👤 Invite a friend >

Also from Meta



Meta AI App Instagram Facebook Threads

Account

- Security notifications >
- Two-step verification >
- Email address >**
- Passkeys >
- Change phone number >
- Request account info >
- Delete my account >

Add your email



Email helps us verify your account or reach you in case of security or support issues. Your email address won't be visible to others. [Learn more](#)

Email

Next

@gmail.com

@icloud.com

@outlook.com

Email address

Settings

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Change phone number >

Request account info >

Delete my account >

Two-step verification



Create a PIN for extra security. Use the PIN to access your account. [Learn more](#)

Turn on



Two-step verification

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Chats



Settings

< Account

🛡️ Security notifications

👤 Access keys

✉️ Email address

*** Two-step verification

📞 Change your telephone number

📄 Request account information

👤+ Add an account

🗑️ Delete my account



Add an account

Only android

Settings

- ☆ Starred >
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- 🔔 Notifications >
- ↕ Storage and data >
- 🔗 Help and feedback >
- 👥 Invite a friend >

Also from Meta



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Privacy

Privacy checkup ✕
Control your privacy and choose the right settings for you. [Start checkup](#)

- Last seen & online Everyone >
- Profile photo Everyone >
- About Everyone >
- Links My contacts >
- Groups Everyone >**
- Avatar stickers My contacts >
- Status My contacts >

Live location None >
List of chats where you are sharing your live location.

Calls >

Groups

- Who can add me to groups
- Everyone** ✓
 - My contacts
 - My contacts except... >

Admins who can't add you to a group will have the option of inviting you privately instead.

This setting does not apply to community announcement groups. If you're added to a community, you'll always be added to a community announcement group.



Groups

Settings

- ★ Starred >
- 📱 Linked devices >

- 🔑 Account >
- 🔒 Privacy >**
- 💬 Chats >
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Live location None >
List of chats where you are sharing your live location.

Calls >

Privacy

Contacts >

Disappearing messages

Default message timer Off >

Start new chats with disappearing messages set to your timer.

Read receipts

If you turn off read receipts, you won't be able to see read receipts from other people. Read receipts are always sent for group chats.

App lock >

Require Face ID to unlock WhatsApp.

Chat lock >

Allow camera effects

Use effects in the camera and video calls. [Learn more](#)

Advanced >



App lock

Require Face ID

When enabled, you'll need to use Face ID to unlock WhatsApp. You can still reply to messages from notifications and answer calls if WhatsApp is locked.

App lock

Settings

- ★ Starred >
- 📱 Linked devices >

- 🔑 Account >
- 🔒 Privacy >**
- 💬 Chats >
- 📄 Notifications >
- ↕ Storage and data >
- 🔗 Help and feedback >
- 👤 Invite a friend >

Also from Meta



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- Links: My contacts >
- Groups: Everyone >
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List of chats where you are sharing your live location.

Calls >

Privacy

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Allow camera effects:
Use effects in the camera and video calls. [Learn more](#)

Advanced >

Privacy checkup >

Advanced

Block unknown account messages:

To protect your account and improve device performance, WhatsApp will block messages from unknown accounts if they exceed a certain volume. [Learn more](#)

Protect IP address in calls:

To make it harder for people to infer your location, calls on this device will be securely relayed through WhatsApp servers. This will reduce call quality. [Learn more](#)

Disable link previews:

To help protect your IP address from being inferred by third-party websites, previews for the links you share in chats will no longer be generated. [Learn more](#)

Advanced

Settings

★ Starred >

📱 Linked devices >

🔑 Account >

🔒 Privacy >

💬 Chats >

📧 Notifications >

↕ Storage and data >

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Communities



Chats



Settings

Chats

Default chat theme >

Animations >

Choose whether emoji, stickers and GIFs move automatically.

Save to Photos

Automatically save photos and videos you receive to Photos.

Chat backup >

Export chat >

Voice message transcripts >

Private Processing >

Keep chats archived 

Updates



Calls



Communities



Chats



Settings

Chat backup



Back up to iCloud so if you switch to a new iPhone you can safely restore your chat history after you reinstall WhatsApp.

Back up now

Auto backup Monthly >

Include videos

To avoid excessive data charges, connect your phone to Wi-Fi or disable cellular data for iCloud:
iPhone Settings > Cellular > iCloud Drive > OFF.

End-to-end encrypted backup Off >

For another layer of security, protect your backup with end-to-end encryption.



Backup

Glossary

[VPN](#), or Virtual Private Network, is a technology that creates a secure, encrypted connection over the internet, allowing users to browse privately and access geo-restricted content. Essentially, a VPN acts as a secure tunnel that encrypts your data and hides your IP address, protecting your privacy and security online.

Thank you!



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