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Guidelines for cross-border cooperation

- supported by Virve and Nødnett



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1 INTRODUCTION

Today, the Nordic collaboration on cross-border emergency communication is part of everyday life in many border regions, such as along the border between Finland and Norway. Many agencies and organizations communicate and cooperate with colleagues in neighboring countries on a daily basis. The opportunity to use the Finnish Virve and Norwegian Nødnett jointly simplifies cross-border cooperation and strengthen both the Finnish and the Norwegian preparedness apparatus.

Erillisverkot, the Norwegian Directorate for Civil Protection (DSB) and Finnish and Norwegian user organizations have created these guidelines based on current needs for collaboration. The Finnish and Norwegian communication systems, Virve and Nødnett respectively, must keep pace with the user needs, technological advances and external changes to remain useful and up to date. The user organizations, with the assistance of Erillisverkot and DSB, will maintain the guidelines, including the organization specific appendices, when necessary.

The guidelines for cross-border cooperation make it easier, more efficient and safer to work together across national borders and organizational boundaries. The guidelines provide a foundation for good preparedness and more effective rescue operations. By connecting Nødnett and Virve, we are enhancing our ability to work together.

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2 ABOUT THE ISI GUIDELINES

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The international standard to interconnect TETRA networks is called Inter System Interface (ISI). ISI is implemented between the Finnish and the Norwegian TETRA networks. The functionality and features provided by this interconnection service is referred to as cross-border communication.

The guidelines are intended for users of Virve and Nødnett and provide a set of rules and premises for cross-border communication. Cross-border communication is needed frequently in the border areas, but the service is available nationwide wherever there is Virve/Nødnett coverage. The guidelines define and explain how emergency response actors should communicate and work with colleagues or collaborative partners in neighboring countries.

The overall FINO guidelines are composed of several documents, where this document ("Guidelines for cross-border cooperation - supported by VIRVE and Nødnett") is the main document and point of reference for the rest of the documents. The user organizations have their own documents that elaborate on agency specific talk groups and relevant scenarios. The End User Council maintains the FINO guidelines.

The Finnish and Norwegian public safety networks will be presented to create a common understanding of the domestic structures and responsibilities. However, the guidelines do not cover information on the national TETRA networks. The documents entitled "Felles sambandsreglement for Nødnett" and "Nødnett I bruk" provide such information for Norway. For Finnish users, this information is provided in organization's guidelines and "Ohje viranomaisradioverkon yhteistoimintapuheryhmien sekä suorakanavien hallinnoinnista ja käytöstä". For further information contact your VIRVE main user or network operator Suomen Erillisverkot. It is important to be aware that training and experience with the national TETRA networks is necessary in order to make use of the content of the FINO guidelines.

2.1 IMPORTANT TERMINOLOGY TO BE FAMILIAR WITH AS YOU READ

Being familiar with the terminology used in the guidelines is essential for your understanding of cross-border communication and your role in it.

TERM	EXPLANATION
Call-back request	A status message sent from a radio terminal to a control room, with the request of being called back by an individual call or group call. This is normal procedure in Norway, but not as common in Finland.
Control room	A collective term for all types of emergency communication centers, meaning all centers that perform the functions of coordination and communication, e.g. alarm coordination centers, operations centers and communication centers. More descriptive and specific terms will be used when it is necessary to stress the distinction between different types of control rooms.
Cooperation	Communication, coordination and collaboration with the aim of performing a task. In this document, cooperation refers to cooperation between Finland and Norway and/or these countries' agencies/emergency response actors.
Cross-border	When actors on both sides of the border are involved during a mission. E.g.: Cross-border communication is communication that takes place between two countries (i.e. Finland and Norway). Cross-border cooperation is interaction that takes place between units from both Finland and Norway.
Direct Mode (DMO)	Direct Mode Operation (DMO) provides the ability for radio terminals to communicate directly with each other independent of the TETRA network infrastructure
Encryption	Manipulation of data with the aim of preventing unauthorized persons from accessing the content.
Group combining	Collective term for merging talk groups. This is done by the control rooms, i.e. the control room merges a national talk group with a FINO talk group.
GSSI	Group Short Subscriber Identity
Individual call	Voice call between two radio terminals.
ITSI number	Individual TETRA Subscriber Identity. ISSI number in addition to country code and network code.
ISSI number	Individual Short Subscriber Identity.
Linking of talk groups Local Site Trunking (LST)	Collective term for all statically linked groups between the neighboring countries. Situation where base station has lost connection to core network also called fallback mode. Providing local coverage/connection for terminals within its coverage area.
MCC number	Mobile Country Code. The country code in the TETRA system's numbering. This is part of the ITSI number.
Migration	When a radio terminal de-registers from a base station in a TETRA network and registers with another base station in a TETRA network with a different country code or network code. In order for the radio terminal to be able to migrate, it has to be set up to do so in advance.
MNC number	Mobile Network Code. The network code in the TETRA system's numbering. This is part of the ITSI number.
MNI number	Mobile Network Identity. The MNI number consists of a country code (MCC) and a network code (MNC).
Personal information	Any kind of information that either directly or indirectly can identify a person. The key factor determining whether information is considered to constitute personal information is whether it is possible to identify a person using the information.
Public Safety Answering Point (PSAP)	PSAP is a term used for the control room taking emergency calls from the public. Note that Finland has one emergency call number (112) and six Emergency response centers (ERCs) answering these calls. Norway has three emergency call numbers (11x). The different control rooms will notify each other when needed.
Radio terminal	The device used as a transmitter/receiver for communication in the Nødnett and Virve TETRA networks. For example, instead of Nødnett radio terminal or Virve mobile, the term radio terminal is used.
SAR	Search and rescue.

3 CONDITIONS FOR USING CROSS-BORDER COMMUNICATION

For the users, two conditions must be met in order to use ISI:

An additional service for cross-border cooperation is required

In addition to having a basic Virve/Nødnett subscription, provisioning must be ordered from the national operator in order for the radio terminal to work in the neighboring network. User organizations that have Virve or Nødnett do not automatically have this access, and the radio terminals have to be updated with proper software and programming. Erillisverkot and DSB regulate the users' access to ISI in Finland and Norway respectively.

Users must be familiar with the service and how to use it responsibly

The end users are responsible for their own know-how. They are expected to be familiar with the ISI features, usage, basic terminology and how to communicate with actors and users from their neighboring country. The user organizations are responsible for maintaining their own capacity regarding cross-border communication. Training and activities that establish and increase knowledge and develop skills are important. Being involved and engaged in relevant governance organizations is crucial.



4 ISI FUNCTIONALITY

4.1 MIGRATION

Migration from one TETRA network to another can either take place automatically based on the relative signal strengths or manually by actively selecting the appropriate option on the radio terminal. Whether the migration takes place automatically or manually will partly depend on the settings in the radio terminal and partly on the individual organizations' guidelines. In both cases, there will be a brief interruption while the radio terminal registers in the neighboring country's network. The migrated radio terminal with the ISI functionality, may communicate with the host country terminals and cross the border with the terminals in home country in accordance with programming, settings and user rights.

The network selection can be programmed in the terminal to happen automatically or manually. This network selection procedure must be investigated well by user organizations and describe the chosen method thoroughly in the national organization specific guidelines. Especially with automatic network selection the users must be aware that in the operational situation in border area, your terminal might sign in to the neighbor country network. It is also good for users to note that the normal talk groups that users are using in their own network, don't work in neighbor country network.

For using any of the ISI features in the neighbor country, care must be taken of the correct parameters and programming. It is important to be aware that some features might work slightly different in the neighboring country's network, due to the different implementation. When the radio terminal has migrated, the user has access to the following features:

4.2 GROUP CALLS

Group calls between Finnish Virve and Norwegian Nødnett are set up through pairs of statically linked talk groups, where the talk group's GSSI numbers are the same in Virve and Nødnett. These talk groups are called FINO talk groups and make it possible to use the same talk groups (GSSI) in both countries (different MNC).



NB: A FINO talk group cannot be combined with another FINO talk group.

Users from both networks can participate in the group call. It does not matter if they are in their home network or have migrated to the neighboring country's network. The FINO talk groups are valid nationwide in both countries and are intended for use in Finnish-Norwegian collaboration at the local, regional and national level. You should use a FINO talk group whenever you intend to cross the border to the neighboring country and when the radio terminal has migrated, or when planning a cross-border activity.

Even if migration is not activated for the radio terminal, the terminal can be used to communicate in FINO talk groups if it is connected to its home network. Therefore, all Virve and Nødnett user organizations are recommended to program all relevant FINO talk groups in all radio terminals regardless of migration.

This assures that all users can communicate with the neighboring country's visiting units. Combining talk groups allows multiple talk groups to be used in same communication. Because the FINO talk groups already are linked talk groups, it is advised to choose the FINO talk groups as the primary group, and the local talk group the secondary group combined. When combining the national talk groups to FINO talk groups to the users might lose knowledge of who are actually working in the same talk group and who are able to listen to the combined talk group.

4.3 INDIVIDUAL CALLS

You can make individual calls both to users in your domestic network and to users in the neighboring country's network. It is possible to make both simplex and duplex calls within and between the two networks. How to make an individual call depends on how your radio terminal is configured. To start an individual call, you must dial the complete number of the radio terminal you want to reach. The complete number to a radio terminal is called an ITSI number and consists of three parts: a country code (country prefix), a network code (network prefix) and an individual number (ISSI).

	Country prefix	Network prefix	ISSI (7 digits)
Finland/Virve	244	0011*	#######
Norway/Nødnett	242	1098	#######

* Airbus D&S implementation, applicable to all MS from this vendor: the radio terminals need a five-digit network prefix. This is done by adding a zero, i.e 00011. This also applies to Air-bus terminals provisioned in Norway.

4.4. EMERGENCY CALLS/SECURITY ALARMS

In TETRA networks, it is possible to program how an emergency call/security alarm should be routed. The radio terminals are set up and programmed based on the organization's preferences. This defines who will receive the emergency call/security alarm.

Therefore, it is important to find out exactly how your organization routes and handles emergency calls. Emergency calls can be addressed to an individual number, to a group or to a dispatcher workstation. As in the domestic networks, local group calls or individual calls (one-to-one) may be disconnected if there are insufficient resources. Emergency calls have the highest priority, but for the time being an individual emergency call from a migrated Finnish radio terminal in Norway will lose its priority. Emergency call to a group will maintain the priority.

Depending on organization's preferences, an emergency call can be distributed to several end points.

1) If the user organization wants the emergency call to go back home to the dispatcher workstation or application in control room, additional linking of talk group needs to take place.

2) It is also a possibility to inform the partners in the host network of your emergency, by either accessing the talk group or sending additional status codes.

4.5 ENCRYPTION

FINO ISI supports the use of end-to-end encryption (E2EE) features in the host network for migrated users, including key updates. E2EE works only for users that are part of the same key management facility. The platform that secure a robust, interoperable communication across devices may

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be situated whether at home or abroad.

All migration movements in FINO are of Security Class 3. Note that keys are not exchanged between the networks. This means that if a visitor ends up in a LST (Local Site Trunking)/fallback situation, and lose the connection to the main infrastructure, the migrated end user will not be able to communicate until the connection is restored. If this happens, EURO DMO should be used (see later in this document.)

4.6 STATUS MESSAGES

Status messages are pre-programmed numerical codes that are translated to plain text. This al-phanumerical text is based on a predefined library that is shared between the subscriber and the control room.

Status messages are used to improve communication between the radio terminal and the control room. This feature also provides lesser impact on the air interface.

It is possible to send group-addressed status messages between Nødnett and Virve. The message will only be read as text if the definition is known in the look up library of the recipient. Otherwise, the control room will only see the five digits numerical code.

Although used in both countries, certain status numbers may have different meanings. Therefore, it is recommended to check the definitions before using status messages in your neighboring country. Efforts to create a European standard for status messages is ongoing and recommended codes will be published.

4.7 SDS MESSAGES

Many services in TETRA use SDS (short data service), e.g. the positioning service. ISI makes it possible to send SDS messages to talk groups or individuals across the Virve and Nødnett networks. A number of factors influence who receives group addressed SDS messages via ISI, e.g. the controlling group's parameter settings. Therefore, you should use private call instead of SDS to transmit restricted or sensitive information.

4.8 TEXT MESSAGES

It is possible to send text messages between radio terminals and/or control rooms. A Norwegian user in Finland can send text messages to other Norwegian radio terminals, regardless of which network they are connected to, and vice versa. When sending a text message to a radio terminal that belongs to the neighboring country, you must use the full ITSI number.

4.9 POSITIONING

Migrated terminals can send information about their position. By default, the radio terminals send such data back to its home country. For frequently migrating terminals, it is recommended to have a special agreement on sharing position data with the host country's authorities. User organization

4.10 PSTN (PUBLIC SWITCHED TELEPHONE NETWORK)

The PSTN feature allows calls to the public network. The service is limited to calls within the country/network the terminal is in. This means that migrated terminals cannot call public numbers in the home country.

5 USING FINO TALK GROUPS

FINO talk groups have been created based on a system that optimizes the number of talk groups and minimizes the number of talk group swaps for the user. In order for ISI to contribute to effective communication and cooperation between Finnish and Norwegian organizations, all users must use the talk groups in accordance with the routines, procedures and methods defined in these guidelines. However, it should be noted, that use of FINO -talk groups can't be in conflict with internal organization-specific guide or order.

5.1 INITIATING THE USE OF FINO TALK GROUPS

It is a fundamental principle for cross-border cooperation in Virve and Nødnett that the person who identifies the need for support from the neighboring country must take the initiative to instigate cross-border cooperation.

In Norway, the control rooms assign the operational FINO talk groups, just as in the country specific network. In Finland, the incident commander and the ERC decide together, depending on the nature of the mission. The choice of talk group is influenced by the organizations that need to communicate with each other and the task they have to perform.

Scenario:

A forest fire has been discovered close to Näätämö (Neiden) in the Northeast Lapland in Finland and the Finnish 112 ERC control room receive the first emergency call. The Finnish incident commander assesses the situation and concludes that assistance from Norway is required. The Norwegian assisting resources are mostly firefighters and volunteers. In order for Norwegian and Finnish users to be able to communicate across the border and in Finland, the control room assigns a FINO talk group for cross-border communication, i.e. FINO-CO-2.

Note that talk groups can be used for communication and negotiations cross the border even when radio terminals do not migrate and when the users are in their own office, base or control room. These group calls can be initiated by any means of communication. In the case of a fault in the commercial services, this capability to speak cross the border serves as a part of preparedness.

5.2 COMMON TO ALL TALK GROUPS AND USER ORGANIZATIONS

When a unit crosses the border, the radio terminals register in the neighbor country's network automatically or manually. The users crossing the border always select the assigned FINO talk group in their radio terminals. If an incident starts in Finland, the Virve user needs to change from his or her national talk group to the assigned FINO talk group.

5.3 GROUP COMBINING OF FINO TALK GROUPS

It is possible to combine a local talk group with a FINO talk group, with some limitations. The recommended procedures are:

• A FINO talk group should only be combined with local talk groups on the side of the border where the incident is taking place and being managed.

• The local talk group is merged with the FINO talk group. The FINO talk group must be the primary group, and the local talk group the secondary group. The order is important to ensure that all users in the combined talk group can hear everything communicated. The local talk group should not be combined with multiple talk groups simultaneously.

In Finland, group combining is not used and it is not used extensively in Norway either. Instead, it is common for the user to select the assigned FINO talk group.

5.4 MULTI-AGENCY AND AGENCY-SPECIFIC FINO TALK GROUPS

End user organizations in Finland and Norway have agreed on one set of FINO talk groups for multi-agency cooperation and one set of FINO talk groups for cooperation between corresponding organizations.

The agency-specific FINO talk groups are intended for cross-border cooperation with the corresponding user organization in the neighboring country, e.g. the Finnish and Norwegian police forces only. The agency-specific FINO talk groups and regulations for these talk groups are described further in separate appendices.



The multi-agency FINO talk groups are intended for cross-border cooperation between various types of Nødnett and Virve user organizations. Multi-agency FINO talk groups should be assigned starting from the lowest available talk group and based on a distribution between odd and even numbers.

There are two categories of multi-agency talk groups:

1. Operational FINO talk groups: The operational talk groups are used when coordinating an ongoing mission and when handling this incident bilaterally. These talk groups are used when radio terminals migrate from one network to another.

2. Strategic FINO talk groups: For coordination and planning on a higher level, strategic multi-agency talk groups are used. Participants rarely migrate when using these talk groups. The use of these talk groups are specified in the following chapters.



6 MULTI-AGENCY TALK GROUPS – OPERATIONAL

6.1 FINO-EM (EMERGENCY SERVICES)

The FINO-EM talk groups are used by the Finnish and Norwegian emergency services (blue light services), i.e. the Finnish/Norwegian police, Finnish rescue service/ Norwegian fire and rescue service, Finnish/Norwegian emergency medical services, Finnish ERC, rescue helicopters, JRCC, Finnish customs and Finnish border guard.

HOW ARE THE FINO-EM TALK GROUPS USED?

The FINO-EM talk groups are used to create a shared situation overview when resources and reinforcements from the neighboring country are required. The FINO-EM talk groups are similar to Virve's MOVI talk groups and Nødnett's BAPS talk groups. A FINO-EM talk group will be closed when it is no longer needed to manage the incident.

ASSIGNING FINO-EM TALK GROUPS

- FINO-EM-1 and 3 are recommended to be used for incidents in Norway (odd numbers)
- FINO-EM-2 and 4 are recommended to be used for incidents in Finland (even numbers)

6.2 FINO-CO (COOPERATION)

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The FINO-CO talk groups are primarily used by user organizations who do not have access to other talk groups for cross-border cooperation. The talk groups are available to all Virve and Nødnett user organizations. The talk groups can be used in both Finland and Norway without being an ISI approved user. Thus, FINO-CO talk groups are available for units from voluntary organisations.

HOW ARE THE FINO-CO TALK GROUPS USED?

These talk groups are used for communication and cooperation when non-authority resources and reinforcements from the neighboring country are required to manage an incident.

ASSIGNING FINO-CO TALK GROUPS

- FINO-CO-1 and 3 are recommended to be used for incidents in Norway (odd numbers)
- FINO-CO-2 and 4 are recommended to be used for incidents in Finland (even numbers)

6.3 FINO-SAR (SEARCH AND RESCUE)

FINO-SAR talk groups are used for cooperation relating to search and rescue operations at sea, air and land when resources from the neighboring country are required to manage incidents. The talk groups are available for Finnish and Norwegian emergency services and all user organizations who are involved in search and rescue missions.

HOW ARE THE FINO-SAR TALK GROUPS USED?

The Maritime rescue coordination centers (MRCC) in Finland and the Joint Rescue Coordination Centre (JRCC or Hovedredningssentralen, HRS) in Norway are responsible for all FINO-SAR talk groups. MRCC, JRCC, the Finnish or the Norwegian police co-ordinate SAR missions.

Scenario:

A Norwegian snowmobiler goes missing in the Kilpisjärvi area. Norwegian emergency- and volunteer rescue units and rescue helicopter conduct a search-operation in Norway and Finland. Finnish police assigns FINO-SAR-1 talk group to coordinate the search mission.

ASSIGNING FINO-SAR TALK GROUPS

- FINO-SAR-1 and 3 are recommended to be used for incidents in Norway (odd numbers)
- FINO-SAR-2 and 4 are recommended to be used for incidents in Finland (even numbers)

6.4 FINO-CUP (POLICE AND CUSTOM)

The FINO-CUP talk groups are used by the Finnish/Norwegian police forces and Finnish-/Norwegian customs for cross-border cooperation between the police and the customs services. These talkgroups are managed by the custom and police.

HOW ARE THE FINO-CUP TALK GROUPS USED?

The user organization that leads the operation reserves a talk group for the assignment. This procedure is possible as these talk groups should be used for planned operations.

ASSIGNING FINO-CUP TALK GROUPS

- FINO-CUP-1 is recommended to be used for incidents in Norway (odd numbers)
- FINO-CUP-2 is recommended to be used for incidents in Finland (even numbers)

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6.5 FINO-CUPB (POLICE, CUSTOM AND BORDER GUARD)

The FINO-CUBS talk groups are used in planned joint operations, or in unplanned cases where the police, custom and border guard need to assist each other. These talk groups are managed by the customs and police.

HOW ARE THE FINO-CUPB TALK GROUPS USED?

These talk groups are used when customs need assistance in operations from police and/or Finnish border guard.

ASSIGNING FINO-CUPB TALK GROUPS

• FINO-CUPB-1 is recommended to be used for incidents in Norway (odd numbers)

• FINO-CUPB-2 is recommended to be used for incidents in Finland (even numbers)

6.6 FINO-CUPBS (POLICE, CUSTOM, BORDER GUARD AND SUR-VEILLANCE)

The FINO-CUPBS talk groups are used in planned surveillance operations.

HOW ARE THE FINO-CUPBS TALK GROUPS USED?

These talk groups are used during surveillance operations where it is necessary to limit the number of people who can monitor the communication as it may be necessary to send sensitive information.

ASSIGNING FINO-CUPBS TALK GROUPS

• FINO-CUPBS-1 is recommended to be used for incidents in Norway (odd numbers)

• FINO-CUPBS-2 is recommended to be used for incidents in Finland (even numbers)

6.7 EURO-DMO TALK GROUPS

Frequencies known as EURO DMO are used in both the Finnish and Norwegian networks. It is possible to collaborate in direct mode (DMO) across national borders or in another country when using these frequencies. National DMO talk groups should not be used in neighboring country and during cross-border communication.

ASSIGNING EURO-DMO TALK GROUPS

EURO DMO 1–10 talk groups can be used by competent organizations that cooperate across national borders or in another country. The talk groups uses predetermined frequencies. Public authorities or organizations using these talk groups must have an agreement with the countries concerned. In the Nordic region, there is an agreement concerning how the talk groups should be used.

International DMO groups:

EURO 1	Calling talk group/cooperation
EURO 2	Border Control
EURO 3	Fire/Health
EURO 4	Police
EURO 5	Customs
EURO 6	Cooperation
EURO 7	Border Control
EURO 8	Health/Fire
EURO 9	Police
EURO 10	Armed Forces

7 MULTI-AGENCY TALK GROUPS - STRATEGIC

7.1 FINO-REG (REGIONAL ACTORS)

FINO-REG talk groups are used for cooperation between national user organizations on the regional level in Finland and Norway. The users, mainly municipalities, have responsibilities in the management and coordination function, and do not migrate as frequently as operative users. FINO-REG talk groups can also be used by regional health authorities.

HOW ARE FINO-REG TALK GROUPS USED?

To exemplify, the talk groups can be used for cooperation meetings in order to exchange information between user organizations or for coordination of the delivery and use of aid, supplies and forces in larger accidents.

ASSIGNING FINO-REG TALK GROUPS

The user that initiates the cross-border consultation invites participants to the group call by callback request, or by reaching out via phone or e-mail. There are no special rules for assigning a FINO-REG talk group.

- FINO-REG-1 is recommended to be used for incidents in Norway (odd numbers)
- FINO-REG-2 is recommended to be used for incidents in Finland (even numbers)

7.2 FINO-AUTH (AUTHORITIES)

FINO-AUTH talk groups are used for cooperation between Finnish and Norwegian national authorities and organizations with regulatory responsibilities that require cross-border cooperation. Examples of users are county governors, traffic agencies, DSB, the Radiation and Nuclear Safety Authority, the Norwegian Directorate of Health, and the governmental level of the Police and Rescue etc.

HOW ARE THE FINO-AUTH TALK GROUPS USED?

To exemplify, the talk groups can be used for cooperation meetings to exchange information between user organizations. The users rarely migrate.

ASSIGNING FINO-AUTH TALK GROUPS

The actor that initiates the cross-border consultation invites participants to the group call by reaching out via phone or e-mail. There are no special rules for assigning a FINO-AUTH talk group.

7.3 FINO-GOV (GOVERNMENTAL ACTORS)

FINO-GOV talk groups are used for cooperation between the highest government office holders in Finland and Norway. Relevant users are the Government Situation Center at the Prime Minister's Office in both countries [called the Emergency Support Unit (KSE) in Norway] and the preparedness directors of relevant ministries.

HOW ARE THE FINO-GOV TALK GROUPS USED?

The FINO-GOV talk groups can be used for information exchange between parties or for planning missions.

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The actor that initiates the cross-border consultation invites participants to the group call by reaching out via phone or e-mail.

- FINO-GOV-1 is recommended to be used for incidents in Norway (odd numbers)
- FINO-GOV-2 is recommended to be used for incidents in Finland (even numbers)

7.4 FINO-PSAP (PUBLIC SAFETY ANSWERING POINTS)

The FINO-PSAP talk groups are used for communication and cooperation between different control rooms. These talk groups are important when coordinating cross-border missions, when sharing information and creating a common situation image. By using these talk groups, control rooms are also able to coordinate the talk group assignments and agree of the supporting forces and inform each other of the situation. The use of this talk group is coordinated by PSAP-centers.

HOW ARE THE FINO-PSAP TALK GROUPS USED?

The users of these talk groups do not migrate. They use the control room application or the dispatcher workstation as their communication device.

ASSIGNING FINO-PSAP TALK GROUPS

The actor that initiates the cross-border consultation invites participants to the group call request message, or by reaching out via phone or e-mail. There is only one FINO PSAP talk group.

8 NATIONAL ROLES AND RESPONSIBILITIES

Finnish and Norwegian user organizations using ISI need knowledge and understanding of national roles and responsibilities in order to run cooperation between the countries smoothly and effectively. The more the organizations and the end users on both sides of the border know about each other's activities, mandates and working principles, the easier it is to avoid misunderstandings and time-consuming explanations.

In addition to requiring additional support from the neighboring country, responders at the local level might require support from the regional level, national level or both. The relevant local authority is in charge of emergency response operations, and initiates measures to manage the incident in addition to providing information on the situation in accordance with agreed practices. The Norwegian municipalities have a fundamental and general responsibility to handle accidents, crises and other incidents. If an incident becomes too comprehensive to handle at the local level, there are resources at the regional and national level ready to assist.

Municipalities are responsible for safety of the citizens and property

Municipalities have formed rescue departments taking care of operative units. Rescue stations also host the emergency medical service personnel and vehicles. Health services are organized together by the health districts and the municipalities.



In this chapter, you can read about how Finland and Norway manage accidents, crises and other incidents. Even though there are structural and organizational differences between the countries, there is a shared goal to save lives, protect people and live-stock, and limit damage on nature and properties.

8.1 SIMILARITIES

The preparedness management systems mainly use an all-inclusive approach based on extensive collaboration between government agencies, private and non-profit organizations, first responders, and other bodies, communities and individuals. This network of security partners share information, set common objectives and commit to collaboration. Volunteers are a vital resource in the Finnish and Norwegian rescue services. Many voluntary organizations have trained local people, e.g. in search for missing persons, in mountain rescue, cave rescue and rescue operations in other challenging terrain. Authorities and government agencies manage accidents, crises and other events on three levels:

- National level: state authorities in the respective countries
- Regional level: county governors in Norway, regional health authorities in Norway, regional rescue departments and health districts in Finland etc.
- Local level: the municipalities

Emergency services on the local level manage most incidents. These actors are stationed at the local premises with vehicles and equipment, and thus the municipalities are responsible for people and property. However, the local level of rescue services is organized at the regional level. To exemplify do the county governors in Norway and the rescue departments in Finland contract the agreements of joint cross-border use of vehicles and gears (ladder vehicles, fire trucks etc.).

REGIONAL LEVEL

Regional agencies are responsible for preparedness and response planning and co-ordination between regional authorities and responder organizations. They coordinate contingency and preparedness exercises and are responsible for cross-administrative assessment of risks as well as monitoring and evaluation of changes in the operational environment.

NATIONAL LEVEL

Erillisverkot and DSB are responsible for the cooperation framework and for supervising the communication system preparedness. DSB is also responsible for coordinating joint preparedness at the national and regional levels in order to safeguard society's vital functions. The relevant central government agencies and ministries may be called upon depending on the type of emergency and the need for escalation.

8.2 DIFFERENCES

The countries' preparedness management systems are quite similar and compatible. However, one should be aware of a few discrepancies. First, the terminology used in Finland and Norway differ. Chapter 8 gives crucial information about how to communicate when cooperating across the borders. In addition, the following differences should be noted:

FINLAND

The incident commander coordinates the response In Finland, the incident commander in charge is the person from the agency in charge. During a multi-agency mission, the rescue field commander has the overall responsibility. In certain rescue operations such as sea- or air rescue, the incident commander will lead the operation from a control room. In such cases, the incident commander appoints a commander at the scene to lead the work at the scene of the incident.

In addition, a medical director from the emergency medical service is responsible for medical decisions and incident medical commander is responsible for operative decisions. At the scene of the incident, the incident general commander makes a decision that gives both the rescue services and other stakeholders guidelines for the work involved in the operation. However, every responder is under the direction of his or her own organization, and no responder has the mandate to issue orders to any other responders outside of their organization.

The Finnish Border Guard For maritime incidents in Finland, there is a specialized PSAP operated by the Finnish Border Guard. This control room is called the Maritime Rescue Coordination Center (MRCC), and answers the maritime rescue alarm number. The 112 center and the MRCC cooperate to find the most suitable units for the mission: SAR units from the Coast Guard or the Finnish Lifeboat Institution, or units from the rescue department if the incident is close to the cost line or harbor area.

The Border Guard is a multi-task organization with a number of duties: border surveillance and control, crime prevention, maritime safety (SAR), and national defense. The Border Guard cooperates closely with customs and the police. The Border Guard performs tasks with mandate from the police. This is especially the case in areas such as Lapland. As the Border Guard often is the only available authority in Lapland, they are well prepared for first aid and search and rescue operations. The Finnish Border Guard does not have a corresponding user organization in Norway.

NORWAY

Crisis preparedness in Norway is based on four fundamental principles: the principle of responsibility, the principle of equivalence, the principle of proximity and the more explicit collaboration principle that requires all actors to collaborate with other actors when necessary to prevent and manage accidents, crises and other incidents.





Norway's four principles

The principle of responsibility	The authority activity or organisation that has daily responsibility for an area will also be responsible for essential preparedness in connection with crises and disasters.
The principle of proximity	Crises shall be managed at the lowest possible organizational level.
The principle of equivalence	The organization that manages a crisis should be as similar as possible to the ordinary organization.
The principle of collaboration	All authorities, enterprises and organizations have an independent responsibility to ensure the best possible collaboration with relevant actors and enterprises in preventive preparedness and crisis management work.

The collaboration principle means that all Norwegian authorities, including the military, have a duty to participate in rescue operations with appropriate and available resources. Private and voluntary resources appropriate for emergency responses may also be mobilized to save lives.

The Police coordinate the response In Norway, the police are responsible for organizing, coordinating and leading search and rescue operations where human life or health is at risk. The exception is search and rescue at sea or on lakes, and searches for missing aircrafts. The Joint Rescue Coordination Centres (HRS) always lead and coordinate such rescue operations.

The Norwegian police retain their leadership and coordination responsibility through-out the emergency phase of the operation, unless another authority takes over this responsibility. This means that an incident manager from the police normally lead rescue operations in Norway. If the Norwegian police are not present, fire and rescue services will have coordination responsibilities and act as incident commander until the police arrive at the scene. The incident commander leads a team of sub-leaders.



In Norway, there is no distinction between municipal or state rescue operations. A joint coordinating apparatus has responsibility for both land rescue as well as rescue by air or by sea.



Incident commander NOTE – Incident commanders in Finland have different functions than do incident commanders in Norway Incident Incident Incident commander commander commander police health rescue services Police Ambulance **Rescue Services**

In Norway, the incident commander comes from the police and has responsibility to organise rescue services as long as no other authority takes over responsibility.

If Norwegian Police is not present, then it is the fire and rescue services that have command and coordination responsibilities and are the incident commanders until the police is on the scene.



Rescue Operations in Finland

There are 22 rescue departments. Some counties are divided in several departments (Nyland + Helsinki).



All rescue stations (ordinary staff) are owned and administered by the rescue department. The voluntary or contracted units (e.g. industry) have service level contract with the rescue department. Municipals are not operative organisations.

For health services, there are 19 districts. Emergency medical service units are responsibility of the health district and they are operated in co-operation with the rescue department. The first reponse ambulances are stationed at the rescue stations.



 dinator
 Incident
 Agent

 Search for missing person
 Police authority

 Maritime incident
 Coast Guard

 Environmental Rescue at Sea
 Coast Guard

 Radioactive Incident
 STUK Radiation and Nuclear Safety Authority

8.3 EMERGENCY RESPONSE NUMBERS

FINLAND

One general emergency response number in Finland, 112 is the general public safety number for emergencies. The emergency number can also be dialed from the radio terminal. There are six 112/ERC centers answering the emergency response number. The Emergency Response Centre Agency (ERCA) operates the 112 centers. The MRCC operates the Global Maritime Distress Safety System (GMDSS) and thus they receive emergency messages from vessels in distress.

The three major blue light service lines (health, police and rescue) have defined pre-made responses for the 112 centers in the event of standard missions. The 112 officer answering the call makes a risk analysis of the incident during the conversation, and follows up by dispatching the most suitable units. They also advise and guide the caller. Each 112 center covers several counties, and can dispatch large quantities of units in the case of large accidents or crisis. The units update the center on the mission and thus the 112 center keeps track of the situation and are in a position where they can alert supplement forces or units if needed. The 112 center tracks the incident until the mission is completed and reported closed by the incident commander.

Alarm Services in Finland

There is only one emergency response number 112 in use in Finland. The calls are answered by ERC - Emergency response center (PSAP.) The centres are operated by ERCA, Emergency Response Center Agency.

The 112 center dispatches all the emergency units ambulance, police, rescue, social worker etc. based on the ready defined reponses. The customs and border guard coul also be called out.

Alarm Services in Norway

In Norway, there are three emergency numbers dedicated to different types of incidents. In the case of an incident involving all the emergency services, the control rooms will notify each other through what is called a triple warning. If only two blue light services are needed at the scene, an "inter-agency warning" will be issued.



NORWAY

Three emergency numbers

In Norway, there are three emergency numbers dedicated to different types of incidents:

- 110 for emergency calls that concern fire or accidents
- 112 for emergency calls that concern police matters
- 113 for emergency calls that involve medical and ambulance matters

In the case of incidents involving all the emergency services, the control rooms will notify each other through a so-called 'triple warning'. If only two blue light services are needed at the scene, a so-called 'inter-agency-warning' will be issued. If the emergency call is interpreted to be a rescue operation, the JRCC will participate in the "inter-agency-triple-warning". The emergency numbers can also be dialed from the radio terminal.



8.4 CONFIDENTIALITY DURING CROSS-BORDER COOPERATION

Both Finland and Norway have legislations that regulate how to handle personal information. The laws of Finland and Norway are similar. The essence of the legislation is that personal information should only be shared with people who require the information to do their job. Communication within talk groups is sensitive. It is difficult to know who is monitoring the communication and who might overhear personal information.

However, confidentiality does not need to be an obstacle to efficient collaboration between authorities if each authority is aware of the confidentiality provisions that apply when they disclose information.

The easiest way to handle this issue is to follow these simple rules of thumb:

• Treat the talk group as if it was open if you're not sure who has access to the talk group and who is listening

- Perform a confidentiality assessment before you disclose sensitive information
- Make an individual call if you're in doubt
- · Confidfenciality must never be an obstacle in the effort to save lives

8.5 GOVERNANCE ORGANIZATIONS

Two collaboration groups ensure effective collaboration between authorities and users in Finland and Norway.

FINO Governance Group: collaboration between Erillisverkot in Finland and DSB in Norway. The purpose of the FINO Governance Group is to maintain collaboration between the two countries and monitor ISI functionality as well as the use of the ISI user service. The basic premise for collaboration is dialogue for continuous improvement.

FINO End User Council: collaboration between Erillisverkot, DSB and user organizations. The purpose of the FINO End User Council is to maintain a dialogue regarding the follow-up on the use of delivered ISI functionality, the FINO talk groups, new ISI user organizations and the FINO ISI guidelines for cross-border communication in Virve and Nødnett.

9 HOW TO COMMUNICATE

Finnish and Norwegian actors who communicate across the national border primarily do so in English. To avoid misunderstandings and time-consuming discussions, it is necessary to ensure that all actors who collaborate across the border are familiar with basic terminology.

National terminology should be avoided. To exemplify should Finnish fire personnel not refer to their incident commander as "P3" in FINO talk groups. Instead, the function should be indicated, e.g. "incident commander, fire". Norwegian users should not use the abbreviation "O-PST", but rather call it "the Norwegian Police Security Service's Operations Centre". This chapter contains a brief overview of spellings and translations of Norwegian and Finnish words/terms concerning preparedness management.

9.1 ICAO PHONETIC ALPHABET

When you need to spell out a word, you should use English terms in accordance with ICAO standard (see the table below). Start with the phrase "I am spelling" (Jeg bokstaverer"/ "minä tav-aan".)

LETTER	DESIGNATION	LETTER	DESIGNATION	DESIGNATION
А	ALFA	Р	PAPA	
В	BRAVO	Q	QUEBEC	
С	CHARLIE	R	ROMEO	
D	DELTA	S	SIERRA	
E	ECHO	Т	TANGO	
F	FOXTROT	U	UNIFORM	
G	GOLF	V	VICTOR	
Н	HOTEL	W	WHISKEY	
1	INDIA	Х	XRAY	
J	JULIETT	Υ	YANKEE	
К	KILO	Z	ZULU	
L	LIMA	Å	ALFA-ALFA	Åse (NO) - Ruots. Å (FI)
М	MIKE	Ä/Æ	ALFA-ECHO	Ærlig (NO) – Äiti (FI)
N	NOVEMBER	Ö/Ø	OSCAR-ECHO	Østen (NO) – Öljy (FI)
0	OSCAR			

You should say the digits in English in accordance with the table below.

DIGIT	DESIGNATION	DIGIT	DESIGNATION
1	ONE (EN/ETT/YKSI)	6	SIX (SEKS/SEX/KUUSI)
2	TWO (TO/TVÅ/KAKSI)	7	SEVEN (SJU/ SEITSEMÄN)
3	THREE (TRE/KOLME)	8	EIGHT (ÅTTE/ÅTTA/KAHDEKSAN)
4	FOUR (FIRE/FYRA/NELJÄ)	9	NINE (NI/NIO/ YHDEKSÄN)
5	FIVE (FEM/ VIISI)	0	ZERO (NULL/NOLL/ NOLLA)

Scenario:

"ACP 125 – I am spelling – ALFA CHARLIE PAPA – ONE TWO FIVE!"



9.2 PROWORDS (EKSPEDISJONSUTRYKK) ACP 125/NATO

ENGLISH	NORWEGIAN	FINNISH
ACTION	lverksett	Toimeenpano
ALL AFTER	Alt etter	Kaikki jälkeen
ALL BEFORE	Alt før	Kaikki ennen
BREAK	Skille	Keskeytys
CORRECT	Riktig	Olkein
CORRECTION	Rettelse	Korjaus
DO NOT ANSWER	Ingen kvittering	Älä vastaa
EXECUTE	Kvitter	Panna toimeen
EXEMPT	Unntatt fra anrop er	Vapauttaa
DIGITS	Talltegn	Luku
I ACKNOWLEDGE	Erkjenn	Kuitata
I READ BACK	Jeg leser tilbake	Luen takaisin
I SAY AGAIN	Jeg gjentar	Toista
I SPELL	Jeg bokstaverer	Tavaan
I VERIFY	Jeg verifiserer	Vahvistan
MESSAGE FOLLOWS	Melding følger	Seuraa viesti
NO PLAY	NO PLAY	Tämä ei ole harjoitus
NOTHING HEARD	Ingenting hørt	Mitään ei kuulu
OUT	Slutt	Ei kuultu mitää, Loppu
OVER	Over	Over, Kuuntelen
READ BACK	Gjenta	Toistan
RELAY (TO)	Transitter til	Releoida, Välittää
ROGER	Mottatt	Roger, Selvä
SAY AGAIN	Gjenta	Toista
SILENCE	Radiotaushet	Radiohiljaisuus
SILENCE LIFTED	Radiotaushet oppheves	Radiohiljaisuus päättynyt
SPEAK SLOWER	Snakk langsommere	Puhu hitaammin
THAT IS CORRECT	Det er riktig	Se on oikein
THIS IS	Dette er	Tämä on
TIME	Tid	Aika
VERIFY	Bekreft	Vahvista
WAIT	Vent	Odota
WAIT OUT	Vent-slutt	Odotus päättynyt
WORD AFTER	Ord etter	Sana jälkeen
WORD BEFORE	Ord før	Sana ennen
WRONG	Det er feil	Väärin
YES	Ja	Kyllä



9.3 GLOSSARY

NORWEGIAN EXPRESSION	ENGLISH EXPRESSION	ENGLISH EXPLANATION	FINNISH EXPRESSION
Alarmsentral brann (Norway)	110 emergency coordination center	Fire control room that receives and handles emergency calls and accidents	110 Hätäkeskus; pelastustoimi (Norja)
Politiets operasjonssentral (Norway)	112 emergency coordination center	Police control room that receives and handles emergency calls concerning police matters	Hätäkeskus, poliisi (Norja)
AMK-sentral (Norway)	113 medical emergency number	Medical emergency control room that handles emergency calls concerning urgent health matters	Hätäkeskus, lääkinnällinen ensihoito (Norja)
112-sentral (Finland)	112 Emergency Response Center	112 number is the common number in Finland for the people to get Emergency help in health, social, police or rescue services matters.	Hätäkeskus (Suomi)
Ambulansetjenste	Ambulance services	Ambulance services are dedicated to provide prehospital emergency medical treatment and/or transport for final treatment for patients with diseases and injuries. The ambulance services are a branch of prehospital services that are performed before the patient arrives at the hospital	Ambulanssipalvelu. On osana ensihoitopalvelua.
AMK-sentral (Akutmedisinsk kommunikasjonssentral)	Emergency Medical Communication Centre	Norwegian Emergency Medical Communication Centre that answers inquiries to the medical emergency number 113. The EMCC alarms and follows up the ambulance and air ambulance	
Beslutningstaker	Decision-maker	Decision-maker	Päättäjä
Brann- og redningsvesenet	Fire and rescue service	Norwegian fire and rescue service, in Finland only rescue service	Norjassa palo- ja pelastustoimi, Suomessa pelastustoimi
Etat	Public authority	Public authority	Viranomainen
Evakuert- og pårørendesenter, EPS	Evacuation and family center	Evacuation and family center	Evakuointikeskus
Fag	Discipline	Discipline within a rescue service, e.g. fire, medical care and police	Toimiala
Innsatsleder brann	Incident commander, Fire	Person responsible for managing incidents involving fire	Pelastustoimen tilannejohtaja, pelastus P3
Innsatsleder helse	Incident commander, Health (ICH)	Person responsible for the health service's overall effort in the field of action	Ensihoidon kenttäjohtaja L4

Innsatsleder politi	Incident commander, Police	Person responsible for police operations	Poliisin tilannejohtaja
Fredsinnsatsgruppe, FIG (Sivilforsvaret)	Response group	A response group that can assist municipal authorities in the event of accidents and extraordinary incidents during peace time. In Finland, it is the volunteer rescue service	Vapaaehtoinen yksikkö, VaPePa
Statsforvalter	County Governor	County governor	Maakuntajohtaja
Helsevesenet	The Norwegian Health Service	All public and private healthcare services available to residents, such as hospitals, nursing homes, ambulances, general practitioners, outpatient clinics, healthcare providers, healthcare for the mentally disabled and others whose task is to prevent, diagnose and treat illness and care for sick people	Terveystoimi
Hovedredningssentral, HRS	Joint Rescue Coordination Center (JRCC)	The Joint Rescue Coordination Center (JRCC) has the overall responsibility for the coordination of all sea, air and land rescue services. This is the rescue services' supreme operational command and coordinating body in Norway. There are two JRCCs in Norway - one in Sola and one in Bodø	Norjalaisten yhteisjohtokeskus
Innsatsleder	Incident Commander	Incident commander. In Norway, the incident commander usually comes from the police. In Finland, the incident commander most often come from rescue or from any responder organisation in charge	Tilannejohtaja tapahtumapaikalla
Innsatsleder KO (kommandoplass), ILKO	Incident command center	Management center (command center) led by the police. Leaders from all delegating agencies are represented. Normally on scene or in the immediate vicinity	Johtokeskus, JOKE
Legevakt	Local emergency center	Local (or community) emergency medical communication centers (LEMC)	Ensiapupoliklinikka
Lokal redningssentral, LRS	Control room at local level	Control room at local level in Norway. LRSs are responsible for leading and coordinating rescue services at the local level	Paikallinen pelastustoiminnan johtokeskus

Medisinsk leder Helse (MLH)	Medical Leader Health (MLH)	Medical Leader Health (MLH) is the top medical leader and ILH's medical-professional advisor	Tilannejohtaja L3, Lääkäri
Finsk Sjøredningssenteret	MRCC	Maritime Rescue Coordination Center	Meripelastuskeskus
Operasjonssentral	Operations center	Operations center	Tilannekeskus, TIKE
O-PST	The Norwegian Police Security Service's Operations Center	The Norwegian Police Security Service's Operations Center (Operasjonssentre i Politiets sikkerhetstjeneste)	Norjan poliisin salaisen palvelun tilannekeskus
Pårørende	Next of kin	A person's next of kin is the person or group of people closest related to that person. Close relative	Lähiomainen
Redningstjeneste	Rescue service	In Norway rescue service is the search for and rescue of people in distress or imminent danger, also known as "search and rescue". In Finland rescue service is consists accident prevention and rescue operations	Pelastustoimi
Situasjonsbilde	Situation awareness	Situation awareness	Tilannekuva
Skadested	Incident scene	Incident scene is the place where the incident has happened and where safety and/or security resources are needed to solve the incident.	Onnettomuuspaikka
Strålevern	Radiation protection	Radiation protection	Säteilysuojelu
		Mutual assistance between authorities; mutual Administrative support	Virka-apu
		The situation office of the Prime Minister's Office	Valtioneuvoston kanslian tilannekeskus
		The Voluntary Rescue Service	Vapaaehtoinen pelastuspalvelu (VaPePa) National umbrella organization of 52 different volunteer organization

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Doctor from the municipalities are responsible and obliged by the Health Personnel Act to give immediate help and to participate in the local out-of-hours service