Public Safety Answering Points
Global Edition

–February 2024–

Understanding PSAPs
around the world has never
been easier

eena
EUROPEAN EMERGENCY NUMBER ASSOCIATION

2023

Abstract

Welcome message

Since 2011, EENA's annual publication "Public Safety Answering Points (PSAPs) in Europe" has become one of the most anticipated documents in the emergency services field. In order to provide readers with an even more comprehensive guide, the document evolved to a global overview and, for the first time ever, in 2016 EENA published "**PSAPs around the Globe**".

In 2023, EENA in collaboration with the Department of Public Security of the Organization of American States (OAS), prepared the publication "Public Safety Answering Points (PSAPs) in Latin America", including information from 10 countries.

The time for the eighth global edition is finally here! This edition includes the data from all the countries in the Latin America edition, resulting in a publication containing information for **64 countries worldwide**! Find details about PSAPs' functioning, understand the complexity of different national structures and get a clear view of the context in which PSAPs operate.

Every year, the report adds new questions and topics to make sure the latest information on new technologies and developments is available to you. The 2024 edition includes everything covered by previous editions, as well as information on the percentage of calls reporting real emergencies, standards used for data exchange and information about citizen responder programmes.

Enjoy your reading!

The EENA team

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For more information, please contact Jerome Paris at jp@eena.org.

Report information

Last updated on 11 February 2024.

Use of symbols

- "-" and "*No information provided*" are used when no answer was provided in a questionnaire response
- "*Not available*" is used when a questionnaire response indicates that the data is not available
- "*n/a*" is used when a question is not applicable

List of acronyms

A definition of all acronyms related to 112 can be found in the <u>112 Terminology EENA Operations Document</u>. It is updated with the terminology used in the EENA Operations and Next Generation 112 documents.

Questions or comments? Please contact Jerome Paris at <u>jp@eena.org</u>.

☰ Contents

Call handling models

This section provides a short explanation of the call handling models as they are defined in the publication "Emergency call handling service chain description" and as they are used in this report.

Please note that the following models do not introduce all the PSAPs Organisation models in the world but present the major concepts with voluntarily simplified descriptions. The models do not cover the entire call handling model but rather try to highlight their major characteristics.

■ Definitions

Emergency Response Organisation (ERO): organisation handling specific type of emergencies, e.g. the police, fire and rescue, emergency medical services, coast guard, etc.

Public Safety Answering Point (PSAP): organisation under the responsibility of a public authority or a private organisation under public mandate in charge of first reception of emergency calls.

General emergency number: phone number that citizens can use for any type of emergencies e.g. 112, 911.

ERO emergency number: a specific number for an emergency service, for example, one number for police, another number for medical emergency services and another for fire and rescue services.

General emergency number PSAP: organisation in charge of handling all types of emergency calls. Its responsibilities and tasks may differ from one country to another.

■ Legend

Callers

Call-takers

Calling a General Emergency Number (i.e. 112, 999…)

Calling a National Emergency Response Organisation (ERO) number (i.e. 17 in France for the police)

Police Emergency Services

Fire and rescue Emergency Services

Medical Emergency Services

→ **Emergency Services Chain Flow**

⇢ **Alternative Emergency Services Chain Flow**

↕ **Communication flows between Emergency Response Organisations**

Police field ressources

Fire and Rescue field ressources

Medical emergency services field ressources

■ Model 1: EROs handling emergency calls

General description

Many emergency numbers co-exist in the country. Emergency calls made to the general emergency number (i.e. 112 in the European Union) are redirected to one of the emergency response organisations, e.g. police, fire and rescue, or medical emergency services.

If the intervention of a different emergency response organisation is required, the call and/or data about the emergency situation are forwarded to the most appropriate ERO.

Examples: Austria, Germany, France.

Emergency call handling chain

Calls are handled by a PSAP operated by one emergency response organisation:

1. Reception of the call by a PSAP operated by an emergency response organisation
2. Dispatch to other emergency services (e.g. a 112 call is answered by the police but the citizen needs an ambulance): the call is forwarded by the operator
3. Dispatch of the intervention resources done by the ERO operators
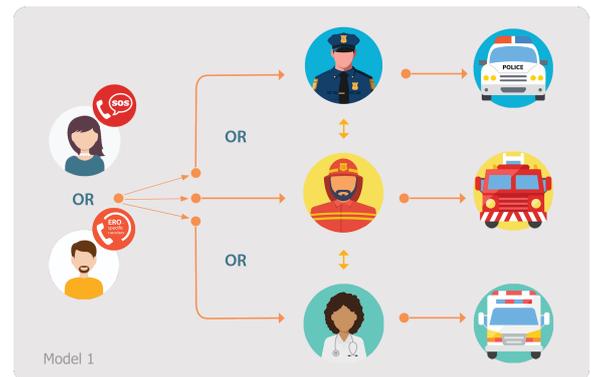
■ Model 2: Filtering Stage 1 PSAP and resource dispatching stage 2 PSAPs

General description

Emergency call handling is organised over two levels: there is an independent organisation in charge of the first reception of the call and then the call is forwarded to the most appropriate local emergency response organisation.

Examples: United Kingdom, Ireland

Emergency call handling chain

The general emergency number calls handled by a general emergency number PSAP:

1. General emergency number (e.g. 112, 999) calls handled by civilian operators
2. Stage 1 PSAP: Filtering tasks. The call-taker locates the caller and where the emergency is. He or she asks the caller with which emergency service he/she wants to get in contact (e.g. "What do you need? police, ambulance, fire and rescue services?"). The detailed gathering of data is not done by the stage 1 call-taker.
3. Transfer to medical / fire and rescue / police services: stage 1 PSAP forwards the call to the appropriate local emergency service
4. Detailed data gathering is done by the emergency response organisation operator
5. Dispatch of the intervention resources is ensured by the emergency response organisation
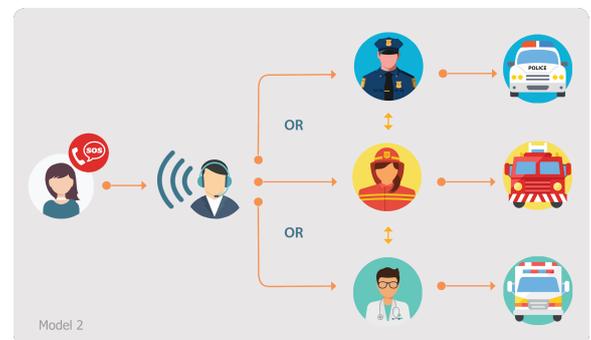
Model 3: Only one emergency number. Data gathering by stage 1, resource dispatching by stage 2

General description

As in the previous model, the handling of emergency calls is organised in two levels. The difference between the "Filtering Stage 1 PSAP and resource dispatching stage 2 PSAP(s)" and this model is the role played by the independent organisation. In this case, the call-taker is in charge of the classification of the call and makes a parallel dispatch to the most appropriate EROs. In some cases, police, fire and rescue and medical specialists are available to support the call takers.

Model 3

Example: Romania

Emergency calls handling chain

The general emergency number calls handled by a general emergency number PSAP:

1. Classification and data gathering done by the stage 1 PSAP call-taker: the operator asks what is happening and decides which EROs should be contacted depending on the information given by the caller. The operator gathers detailed data about the location and emergency situation of the caller.
2. Parallel dispatch to medical emergency / fire and rescue / police services if needed
3. Dispatch of the intervention resources done by emergency response organisation

Model 4: National emergency numbers routed to EROs. General emergency calls routed to civilian PSAP

General description

General emergency number (i.e. 112) co-exists with national numbers. Emergency calls made to the general number are routed to civilian PSAPs, calls to national numbers are routed to EROs.

Model 4

Example: Spain – some regions

Emergency calls handling chain

For the emergency calls made to the generalist emergency number, the emergency calls handling chain is the same as model 3.

For emergency calls made to the national specific EROs numbers, the emergency calls handling chain is the same as model 1.

■ **Model 5: Civilian Call-Taking & Dispatching**

General description

Emergency calls made to the general emergency number (i.e. 112) are handled by civilian operators. The operators are highly trained and handle both call-taking and dispatch of intervention resources. In some cases, police, fire and rescue and medical specialists are available to support the call-takers.

Model 5

Example: Finland

Emergency call handling chain

The same PSAP is in charge of all tasks: classification of calls, data collection and dispatching the intervention resources to the incident.

Source

Emergency call handling service chain description

EENA knowledge hub

EENA is committed to knowledge-sharing in our effort to improve public safety and the work of emergency services. We **regularly publish documents on numerous topics about**:

- 112 General Information
- Access to 112
- AED
- Apps
- Case Studies
- Drones
- eCall
- Legislation
- Location
- NG112
- PSAP Operations
- PSAP Technology
- Public Warning
- Social Media in Emergencies

View all our **documents** and **webinars** under the knowledge hub available at the **EENA website**.

🇫🇷 France

67 million	**672,051** km²	**74,536** K	**2022**
Population	Area	Calls	Year of reference

🏛 Organisation handling 112

Fire and Rescue Services (Ministry of interior) and Emergency Medical Services (Ministry of health)

⚖ National legislative / regulatory acts on 112

- Articles L.33-1 and D98-8 of the "Code des postes et de communications électroniques" (postal and electronic communications code)

- Decision N° 2002-1179 and 2007-0180 establishing the list of emergency numbers

- Decision N° 2015-0153 modifying decision N°2002-1179 for the emergency numbers

- Circulaire du 21 avril 1995 relative to application of 112, European unique emergency number (journal officiel de la république française N°108 du 7 mai 1995)

- Décret N°2012-488 modifying obligations of electronic communications operators in respect of the new European rules framework

📖 Report applies to

- 112 Centre(s), FRS, EMS, Police, Centre National Relais 114 (CNR 114)

- All of France

Emergency call handling model

112 calls are redirected to Fire and Rescue Services for 66 departments (districts), to Emergency medical services for 14 departments (districts) and 21 to PSAP gathering several forces. If the intervention of a different ERO is needed, calls are forwarded to the most appropriate ERO. Dispatch of the rescue resources is made by the ERO operators.

Model 1

Model 1 applies to most districts in France, with a few exceptions:

- In 21 departments, FRS and EMS operate within the same PSAP, thus moving closer to model 4 for these two services
- In Paris and 3 districts surrounding the capital, a mix between model 1 and 4 is in use: police and Fire and Rescue are gathered on the same platform (numbers 112, 17 and 18 can be used to reach this platform) but without EMS (that can be reached by dialling 15 and have their own emergency call centres)
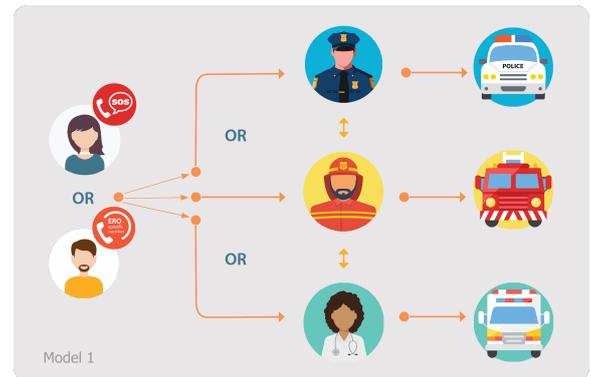
eCall implementation

eCall is available since April 1st, 2018. Calls (voice and data) are handled by 1 dedicated eCall PSAP (Third-Party service) and transferred to the most appropriate 112 PSAP if needed.

- ✔ eCall has been implemented
- ✘ Not possible to receive IMS based eCalls (NG eCalls)

Model 2
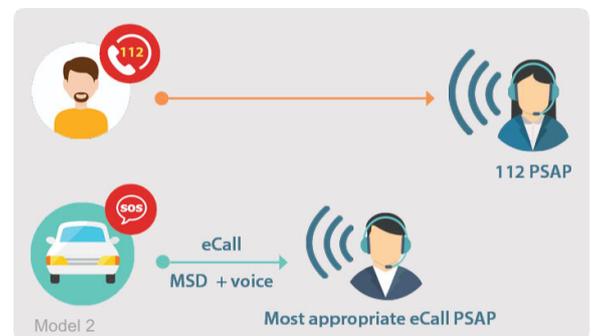
112 BASED ECALLS IN 2022			
eCall Type	Calls Received	Emergency Cases	Comments
Manual	96,229	1,097	Including 119 silent calls
Automatic	16,560	5,746	Including 1,442 silent calls
Total	108,619	6,818	6,818 interventions without presuming a proven emergency

🖳 PSAPs & dispatch centres

	PSAPs	DCs	Comments
PSAPS & DISPATCH CENTRES (CDS)			
112	-	-	
FRS	77	77	
EMS	79	79	
Police	242	242	
Other	15	15	1 for 114 ("Centre National Relais" = PSAP handling communications with people with disabilities), 8 for 196 (maritime rescue), 5 for SAR (Search and Rescue), 1 for eCall (SNSA)
Several Forces	22	22	21 PSAP gathering FRS and EMS, 1 PSAP gathering FRS and police All these PSAP receive 112
TOTAL	**434**	**434**	

Emergency Numbers

EMERGENCY NUMBERS ANSWERED BY PSAPS		
PSAPs	**Numbers**	**Comments**
112	n/a	112 calls are always answered with other primary emergency numbers (eg. 112 + 18 or 112 + 15)
FRS	18 112	
EMS	15 112	
Police	17	Split between Police and Gendarmerie depending on territories
Other	114 115 119 116000 191 196 197	114 : disabled people, 115: social emergencies, 119: Child helpline, 116000 : Missing children, 191: Aerial rescue coordination, 196: Maritime rescue coordination, 197: terrorist attack
Several Forces	15 17 18 112	20 PSAP gathering FRS and EMS (15-18-112), 1 PSAP gathering FRS and police (17-18-112)

▮ Non emergency numbers

- 116-117: Medical advice
- 116-111: Child helpline
- 116-000: Missing children

Emergency calls in 2022

EMERGENCY CALLS			
	Calls	Real Emergency Calls	Comments
112	9,126,698	-	
FRS	10,451,706	-	
EMS	21,569,051	-	
Police	18,740,038	-	
Other	14,648,608	-	
TOTAL	74,536,101	-	

Emergency calls per type in 2022

EMERGENCY CALLS		
	Calls	Comments
📱 Mobile Telephone Networks	57,093,427	
📞 Fixed telephone networks (landlines)	17,439,674	
🏢 Campus/private and IP networks	No information provided	

■ **PSAP capacity to receive IP based communications**

The design of the solution is in progress

⚙ Technology and equipment used in the PSAPs

→ **Do all PSAPs use the same technology in your country?**
No. Police services use the same technology. FRS & EMS have different systems using different technologies.

→ **How are the PSAPs interconnected?**
Some are interconnected via data, others only voice interconnected. Some FRS and EMS in the same district are interconnected via data.

→ **Are PSAPs/dispatch centres using a standard to exchange data between?**
When used, PSAPs exchange data according to the NF 399 standard. Work is, also, underway to use the EDXL standard.

TECHNOLOGIES AVAILABLE IN THE PSAPS		
Geographic Information System (GIS)	✓	
Geographic Information System (GIS)	✓	
Computer-Aided Dispatch (CAD)	✓	
Interactive Voice Response (IVR)	✓	Most of the PSAPs
Video communication	✓	Tools like GeoLoc 18-112 (FRS PSAPs) and GendLoc (Police PSAPs)
Tools for remote call-taking	✗	

⚙ Next Generation 112 (NG112)

→ **Do you consider upgrading towards Next Generation 112?**
Yes, in the next 5 years

→ **Have you established a plan for the migration to NG112?**
Not yet

→ **Are you aware of any plans to shutdown 2G/3G mobile telecommunications networks?**
No, a plan has not been established yet

⊙ Caller Location in support of emergency services

MOBILE CALLER LOCATION			
Type	**Time needed**	**% of calls**	**Comments**
Cell-ID			Available, no further information provided
AML			It depends on the information system in use in the emergency call center
HTML 5 Geolocation			Available, no further information provided
Handset-derived location via App			Available, no further information provided

■ Landline caller location

Time needed

No information available

How often are the subscriber number addresses being updated?

The database is updated synchronously on a dedicated server by the telephone operators

Advanced Mobile Location (AML)

✅ AML Deployed

Apps

🟧 **Urgence 114**
→ Provides GNSS based location
→ National coverage

app specifically developed for people with disabilities.

Accessibility for people with disabilities

ACCESSIBILITY SERVICES	
Service	**Comments**
Fax	
SMS	SMS sent to 114
Relays	CNR 114 PSAP

SMS service for all citizens

→ SMS service is not available

112 available from handsets without SIM cards?

No

Cooperation with Third-Party Services (TPS)

THIRD-PARTY SERVICE		
Third-Party Service	**Cooperate***	**Comments**
Medical alert or Telehealth	✓	
Calls from Satelite Telephony Service Providers	✓	SOS by satellite from iPhone 14 are handled by IMA (as a TPS provider) and transferred to the most appropriate PSAP if necessary
Translators/Interpreters	✓	
eCall TPSPs	✓	

*TPS cooperates with emergency services

Use of social media

■ **Social media/networks are used to**
→ Monitor potential incidents
→ Share prevention tips with citizens and build public preparedness
→ Share information about incidents towards citizens

■ **Virtual Operations Support Team (VOST)**

A VOST is already set up: Visov, see visov.org.

■ **Most followed social media accounts**
→ @SecCivileFrance
→ @VISOV1
→ @PompiersFR
→ @secourisme_net
→ @Beauvau_Alerte

Public warning

■ **Public warning by**
→ Sirens

→ Radio
→ TV
→ Cell Broadcast
→ Location Based SMS
→ Social media

🟧 **Organisation Responsible for public warning**

Ministry of Interior

Use of RPAS *(RPAS)*

Drones are used by Emergency Services Organisations (ESOs)

🟧 **Emergency Services Organisations (ESOs) using RPAS**

→ FRS
→ Police

Use of AEDs *(Automated External Defibrillator)*

→ AED registries/maps are not used

🟧 **Citizen responder programme**

Citizen-rescuer status has had a legislative framework since 2020.
There are citizen responder initiatives in France but none is an official programme led by public authorities.

☆ Quality of Service

Call handling evaluation	✗ Call handling service is not evaluated
Use of key performance indicators	✓ Yes
Use of protocols by call-takers/dispatchers	✓ Yes
Use of questions and decisions tree by call-takers/dispatchers	✓ Yes *In some PSAPs*
Established processes or certifications for ensuring cybersecurity	✓ Yes
Recording & storage of emergency communications	✓ Yes *2 months for Police. It depends of each services, main of time, they keep them as long as possible*
Quality certification(s)	✗ No quality certifications

⚐ Projects, reforms, upgrades

- An interministerial working group has been working since spring 2023. Its purpose is to take account of the provisions of Delegated Regulation 2023/444 on the routing of emergency calls
- SOS by satellite from iPhone 14 are handled by IMA (as a TPS provider) and transferred to the most appropriate PSAP if necessary
- NexSIS project ongoing (NG112 deployment for FRS PSAPs)
- SI-SAMU project ongoing (modernisation programme common to all EMS PSAPs; among other items it includes calls handling tools, telephony and GIS)
- RRF : project for criticall communication for ESO
- Police has begun to reduce its number of PSAPs (target is a one-third reduction)
- Ongoing programme to evaluate the best set-up regarding emergency numbers and common platforms (implement a unique emergency number with common platforms for EMS, police, FRS and different layers of call handling to filter/distribute the calls; have two emergency numbers, one for the police and FRS -112- and another one for all calls related to health issues -113, with common platforms or at least advanced interoperability between PSAPs; …etc)

■ **Plans to use any type of AI**

Not yet

🏭 Technology providers

- Acta
- EDMap
- Airbus
- All-RTP
- Atos
- Cross Call
- CS Communication & systems
- Deveryware
- Exos
- F24 (formerly Gedicom)
- Hexagon
- IMA
- Inetum
- Intersec
- Mondial Assistance
- Onstar
- Permis de Sauver
- Prescom
- SauvLife
- Systel
- Techwan

Annex 1: Number of PSAPs per service

Country	Data	Stage 1		FRS		EMS		Police		Other		Several Forces		TOTAL	
		PSAP	DCs	PSAP	DCs	PSAP	DCs	PSAP	DCs	PSAP	DCs	PSAP	DCs	PSAP	DCs
France	2022	-	-	77	77	79	79	242	242	15	15	22	22	434	434

Annex 2: Direct emergency numbers to PSAPs

Country	Stage 1	FRS	EMS	Police	Other	Several Forces
France	n/a	18, 112	15, 112	17	114, 115, 119, 116000, 191, 196, 197	15, 17, 18, 112

Annex 3: Number of calls per service

Country	Data	Stage 1	FRS	EMS	Police	Other	TOTAL
France	2022	9,126,698	10,451,706	21,569,051	18,740,038	14,648,608	**74,536,101**

Annex 4: Number of calls per network type

Country	Data	Mobile	Fixed	Campus/private and IP networks
France	2022	57,093,427	17,439,674	-

Annex 5: Technologies available in the PSAPs

Country	Geographic Information System (GIS)	Computer-Aided Dispatch (CAD)	Interactive Voice Response (IVR)	Video communication	Tools for remote call-taking
France	✓	✓	✓	✓	✕

Annex 6: NG112

Country	Consider upgrading?	Established Plan?	Are you aware of any plans to shutdown 2G/3G mobile telecommunications networks?
France	Yes, in the next 5 years	Not yet	No, a plan has not been established yet

Annex 7: Mobile Caller Location

Country	Cell-ID			Sector-ID			Advanced Mobile Location (AML)			HTML 5 Geolocation			Apps		
	Available	Time	Calls	Available	Time	Calls	Available	Time	Calls	Available	Time	Calls	Available	Time	Calls
France							✓								

Annex 8: Landline Caller Location

Country	Time needed	Update frequency
France	No information available	The database is updated synchronously on a dedicated server by the telephone operators

Annex 9: Apps & SMS

Country	Apps	SMS Service for all citizens
France	→ Urgence 114	✕ Not available

Annex 10: Accessibility

Country	Fax	SMS	App	Video call	Real time text	Other
France	✓	✓				→ Relay Services

Annex 11: Cooperation with Third-Party Services (TPS)

Country	Data	Security services	Personal safety	Lone and remote worker support services	Fire monitoring services	Medical alert services	Satelite calls	Counselling and mental health services	eCall TPSPs	Comments
France	2022	✕	✕	✕	✕	✓	✓	✕	✓	**Satelite calls**: SOS by satellite from iPhone 14 are handled by IMA (as a TPS provider) and transferred to the most appropriate PSAP if necessary;

Annex 12: Public Warning

Country	Sirens	Radio	TV	Cell Broadcast	Location-based SMS	Other
France	✓	✓	✓	✓	✓	→ Social media

Annex 13: AED Mapping

Country	AED registries or maps	Citizen responder programme
France	✕	