



mobile services for
Public Safety



Mobile Alarm and Command & Control Management for Styrian Mountain Rescue Teams

Sebastian Stepfer Projectmanager MOPS GmbH

ICAR 2022, Montreux

kontakt@mops.eu
www.mops.eu

Find us also on [youtube](#), [linkedin](#) and [xing](#)



Introduction

Steiermark (Styria) state in Austria, Europe.



Steiermark





Introduction





Project Partners



Landeswarnzentrale Steiermark (LWZ)

The Civil Protection Control Center of Styria

Project Sponsor: Günter Hoheberger, Head of LWZ



Österreichischer Bergrettungsdienst Land Steiermark (BRD)

The Mountain Rescue Service of Styria

Project Sponsor: Stefan Schröck, Head of BRD



MOPS GmbH

Solution Supplier



The Landeswarnzentrale Steiermark (LWZ)

Coordination of Large-Scale Disaster Situations
» Emergency Number 130

Coordination of Rescue Operations

Environmental Threat Management

Nuclear Threat Management

Calltaking and Coordination for Mountain Rescue Operations
» Emergency Number 140



The Bergrettungsdienst Land Steiermark (BRD)



BERGRETTUNG
STEIERMARK

Search & Rescue Operations in the Mountains

11 Regions (Gebiete)

53 Areas (Ortsstellen)

~ 1800 Mountain Rescuers

~ 300 Incident Commanders

~ 1100 Incidents per year



Project Objectives

Improve Service for People in Distress in the Mountains

PRIO 1 Increase Quality & Reduce Time for 140 Calls

PRIO 2 Improve Collaboration and Communication

PRIO 2 Create a Comprehensive Common Operating Picture

PRIO 2 Accelerate Access to High Quality Data during Operations

PRIO 2 Provide State of the Art Tools for our People

PRIO 3 Derive consistent Documentation from the System



The Solution

LWZ and BRD decided to work on One integrated Solution.

SaaS Solution based in the Cloud ensuring highest Safety & Security Standards

Wide Range of Apps for Control Center to Field Resources and Administration available

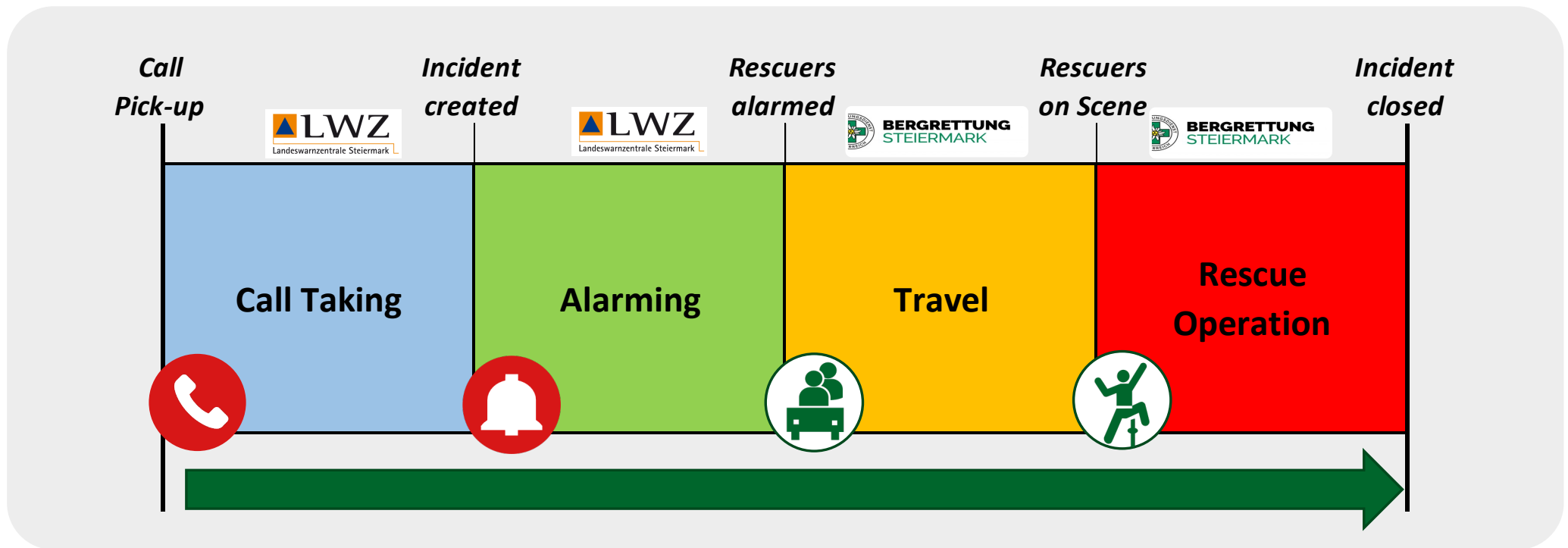
Apps run on any Device:
COBO to BYOD, Android, IOS or Windows, Tablet or Smartphone

Apps need to be capable of occasionally Offline Situations

Unique look and Feel in a consistent User Experience



The Process of a „140“ Call





Call Taking

Determine accurate and fast who? what? where?

Classification of Incidents using predefined Types

Geocoding based on Public, Government and Private Geodata

Recognition of different Coordinate Systems

Visualizations using Maps from Public, Government and Private Sources

SMS based Location Query

Determination of Responsibility Areas



Call Taking - Predefined Incident Types

Einsatz erfassung ✓ ✕

GRUNDDATEN ⌵

Anrufername

Anrufernummer

Einsatzname *

Organisation *

Beschreibung

Sprechgruppen / Kontaktinformation

EINSATZORT ⌵

Suche

Suche Strasse (Nr) oder POI (Stadt, PLZ) (mind. 3 Zeichen)

Strasse/Platz Nr

Ortsteil / Bezirk

Ortsbeschreibung

Einsatzstichwort *

BR

- BR-Bereitschaft
- BR-Bike
- BR-Canyon
- BR-Eisklettern
- BR-Fels
- BR-Forstunfall
- BR-Gleitschirm
- BR-HS Bereitschaft
- BR-Klettersteig
- BR-Lawine
- BR-Lawine gross
- BR-Lift Evakuierung
- BR-Notzeichen

Zuständigkeiten



Call Taking - Geocoding against a variety of Sources

Einsatz erfassung

GRUNDDATEN

Anrufername	Mr Caller	Anrufernummer	+491728315377
Einsatzname *		Einsatzstichwort *	BR-Suchaktion
Organisation *		Status *	Neu
Beschreibung			
Sprechgruppen / Kontaktinformation			

EINSATZORT

Suche: Hesshütte

- Heli-Landeplatz Hesshütte
- Heßhütte, 8912, Admont, Liezen
- Schutzhütte Hesshütte Johnsbach Ennstaler Alpen (ÖAV-Sektion Austria)
- Haus-Nr. 41, 8912 Johnsbach, Österreich

Urschreibung: Zuständigkeiten:



Call Taking - SMS based Location Query

Einsatzfassung ✓ ✕

T:

EINSATZORT ? ✎ ✕ ^

Suche

🔍

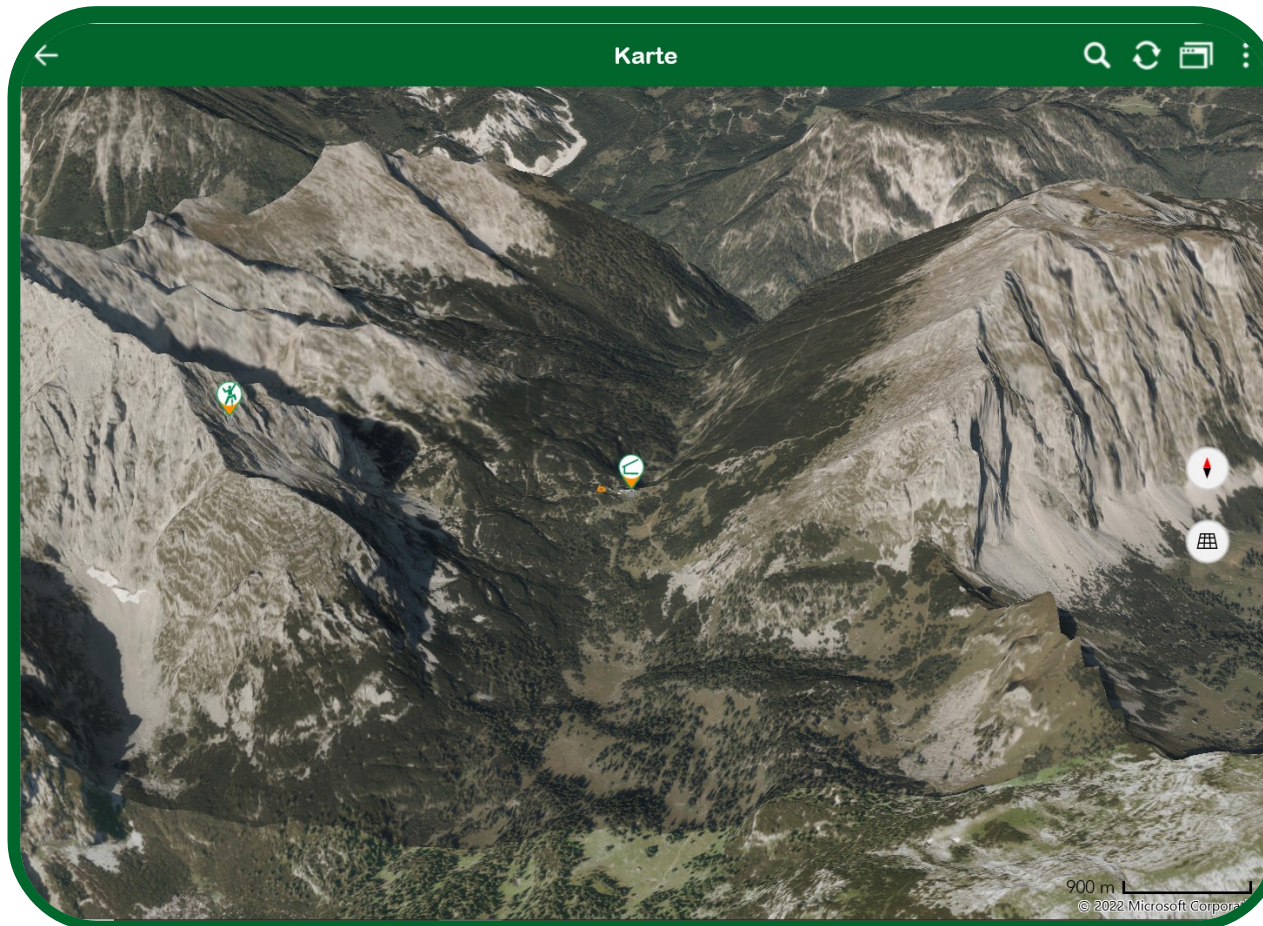
Strasse/Platz Nr	Postleitzahl / Gemeinde
T <input type="text" value="Am Meisenbühel"/> <input type="text" value="10"/>	T <input type="text" value="1130"/> <input type="text" value="Wien"/>
Ortsteil / Bezirk	Koordinaten *
T <input type="text" value="Hietzing"/> <input type="text" value="Wien"/>	<input type="text" value="48,1859889 / 16,2572751"/>
Ortsbeschreibung	Zuständigkeiten
T <input type="text"/>	T <input type="text" value="BROS 01 Admont, BH LI"/>

KARTE 🔍 🔍 🔴 ^

© 2022 Microsoft Corporation



Call Taking - Maps from a variety of Sources





Alarming

Get the necessary Resources alarmed and committed fast and secure!

Alarmplan per Responsibility Area

Checklists for Operators

Alarm and select Incident Commander

Alarm necessary Resources

Monitor Commits



Alarming - Alarmplan per Responsibility Area



Österreichischer Bergrettungsdienst
Land Steiermark
8010 Graz, Radetzkystraße 16



9. „LAWINE GROSS“

Indikationen: Lawine mehr als 2 verschütteten Personen

Alarm:

Eigene Ortsstelle	Talschaft Hundeführer	Canyoningrettung	Ärzte Gebiet	RECCO SAR
BROS 08 / Graz	Talschaft Mürztal	Auf Anforderung EL	Alarm	Auf Anforderung EL

Automatische zusätzliche Alarmierung mind. 2 weitere Ortsstellen

Ortsstelle: BROS 47 / Übelbach

Ortsstelle: BROS 07 / Fladnitz

Ortsstelle: BROS 50 / Weiz

Gebietsalarm ja nein



Alarming - Checklist to guide Operators

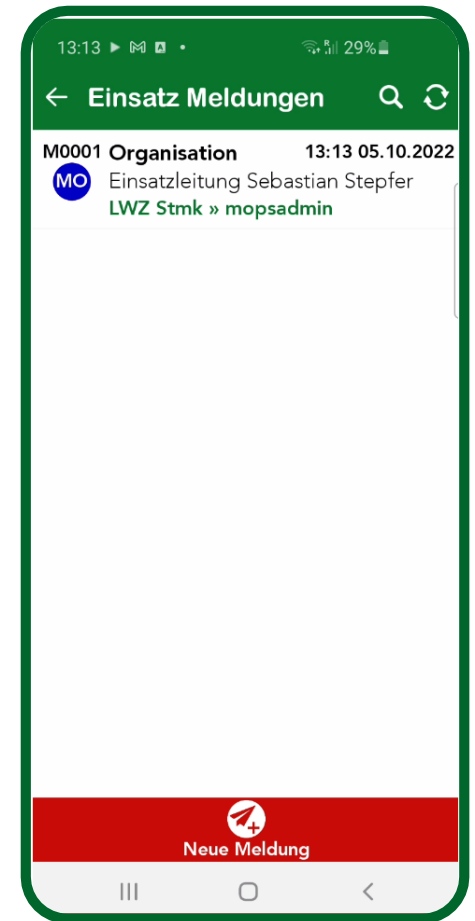
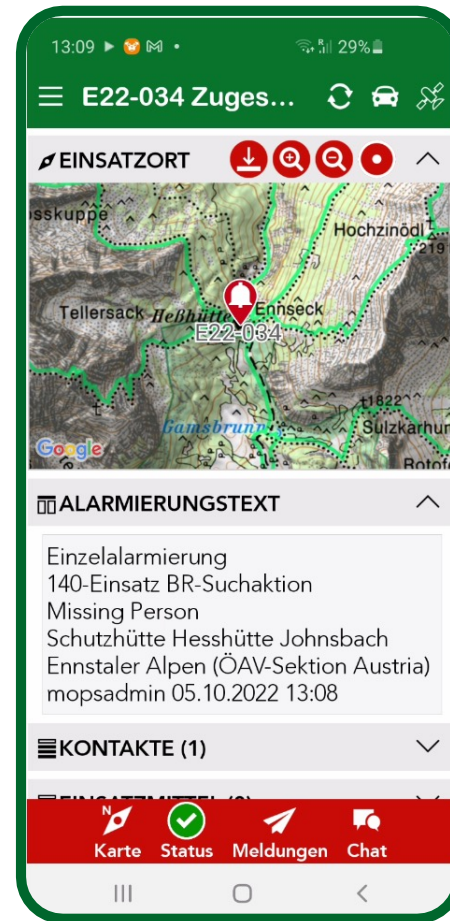
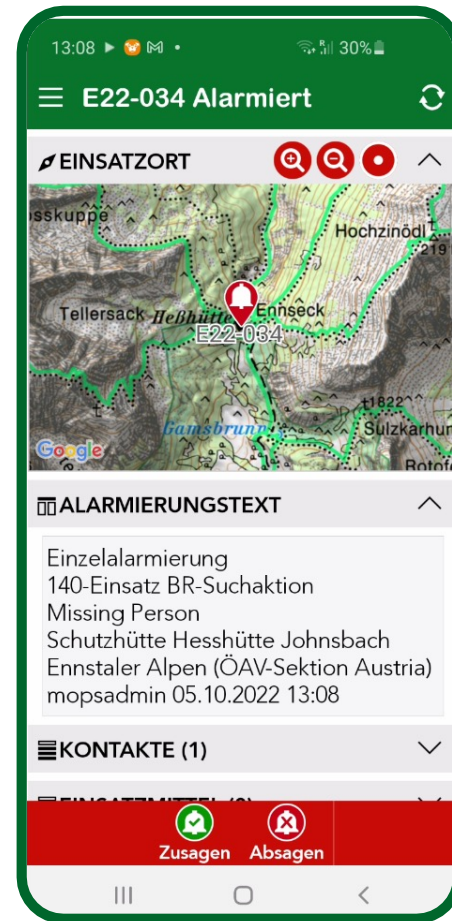
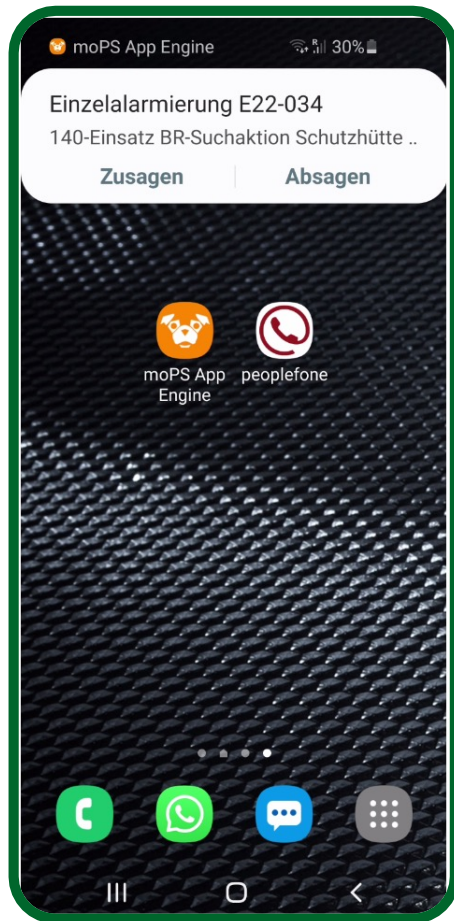
Massnahmen

- > 01 Leitstellen kontaktieren
- ✓ 02 BR Ortsstelle alarmieren
 - ✓ 21 BROS Graz Alarmplan (Dokument)
 - ✓ 22 Alarmgruppen der Ortsstelle
 - ✓ BROS 08 Graz Alle 08.09.2022 13:25
 - ✓ BROS 08 Graz EL
 - ✓ 23a Zusatzgruppen obligatorisch
 - ✓ 23b Zusatzgruppen optional
- > 25 Einsatzmittel der Ortsstelle
 - ✓ 28 Ortsstelle Kontaktinfos
- > 03 BR Gebiet alarmieren
- > 04 BR Sondergruppen alarmieren
- > 05 Hubschrauber

Massnahmen










Alarming - Alarm Incident Commander & Resources





Alarming - Monitor Commits

Einsatzmittel		
ZUGESAGT	10	ALARMIERT
		33
		ABGESAGT
		9
		KEINE RÜCKMELDUNG
		13
	PINTER Rüdiger2 Einsatz beendet BROS 06 Eisenerz EL Einsatzleiter EL GL BROS 06 Eisenerz » markus.haider	12:29 04.10.2022
	ALBINGER Anton Einsatz beendet BROS 06 Eisenerz Alle Bergretter BROS 06 Eisenerz » anton.albinger	12:48 04.10.2022
	KAINRATH Florian Einsatz beendet BROS 06 Eisenerz EL Bergretter EL GL BROS 06 Eisenerz » florian.kainrath	12:29 04.10.2022
	KORNDON Alfred Einsatz beendet Komme evtl. BROS 06 Eisenerz Alle Bergretter BROS 06 Eisenerz » alfred.korndon	12:35 04.10.2022
	KOTHGASSER Jürgen.M Einsatz beendet BROS 06 Eisenerz Alle Bergretter BROS 06 Eisenerz » jürgen.m.kothgasser	12:44 04.10.2022
	LEIS Stefan Einsatz beendet BROS 06 Eisenerz Alle Bergretter BROS 06 Eisenerz » stefan.leis	12:59 04.10.2022
	NEUMANN Jürgen Einsatz beendet BROS 06 Eisenerz Alle Bergretter BROS 06 Eisenerz » jürgen.neumann	12:36 04.10.2022

BROS 06 Eisenerz » jürgen.neumann



Travel

Bring Resources on Scene fast and safely

Determine Meeting Point and inform Resources

Rooting to Meeting Point

Routing to Incident

Monitor Approaching Resources

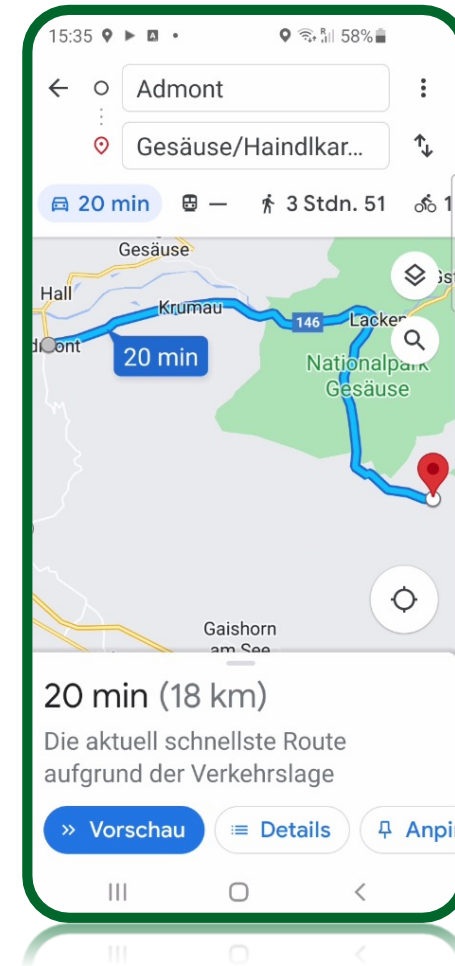


Travel – Meeting Point





Travel – Routing to Location





Travel – Monitor Approach

Einsatzmittel

AKTIV 6 ZUGESAGT 7 ALARMIERT 8 ABGESAGT 0 BEENDET 1 KEINE RÜCKMELDUNG 1

- Christian Schwarz** 15:37 05.10.2022
[Unterwegs zum Einsatzort]
Person (Allg)
FLR
OS MOPS » mopsadmin
- Gerd Bauer** 15:37 05
[Unterwegs zum Einsatzort]
Person (Allg)
BF CY EL
OS MOPS » mopsadmin
- Manfred Czjuan** 15:37 05
[Unterwegs zum Einsatzort]
Person (Allg)
OS MOPS » mopsadmin
- Michael Bauer** 15:41 05
[Zugesagt]
Person (Allg)
EL
OS MOPS » mopsadmin
- Michael Justus** 15:38 05
[Unterwegs zum Einsatzort]
Person (Allg)
OS MOPS » mopsadmin
- Sebastian Stepfer** 15:38 05
[Unterwegs zum Einsatzort]
Einsatzleiter
EL
OS MOPS » mopsadmin

Treffpunkt Alarmieren Meldungen

Karte

BROS Admont
Aigen 4 8911 Aigen



Rescue Operation

Support an effective Rescue Operation.

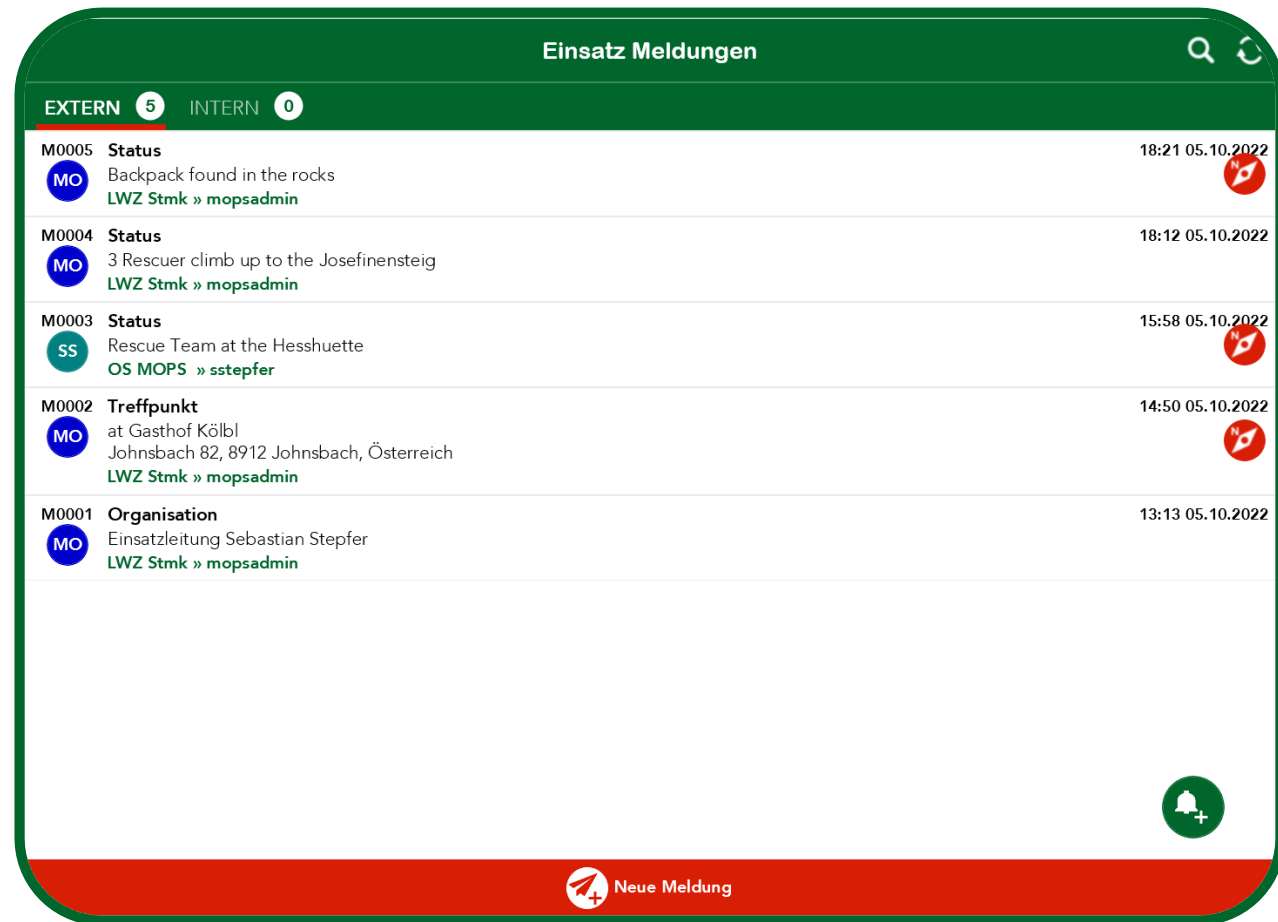
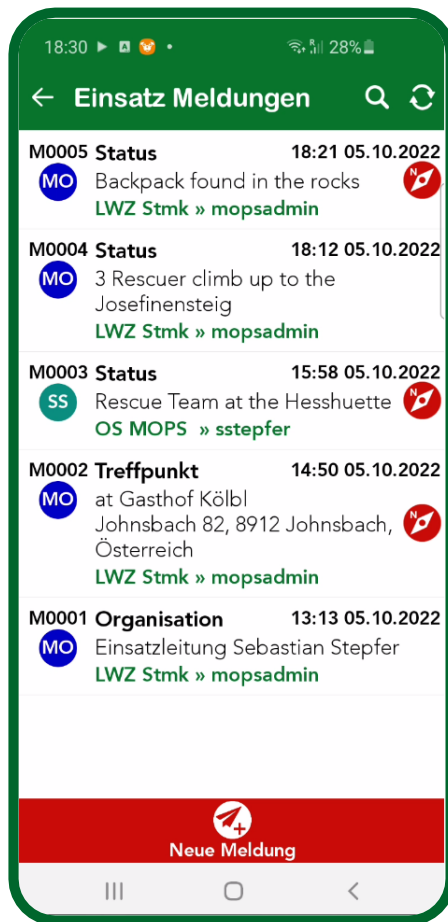
Communication between Control Center and Rescue Forces

Communication for the Rescue Forces in the Field

Common Operational Picture for Control Center and the Rescue Teams Leadership

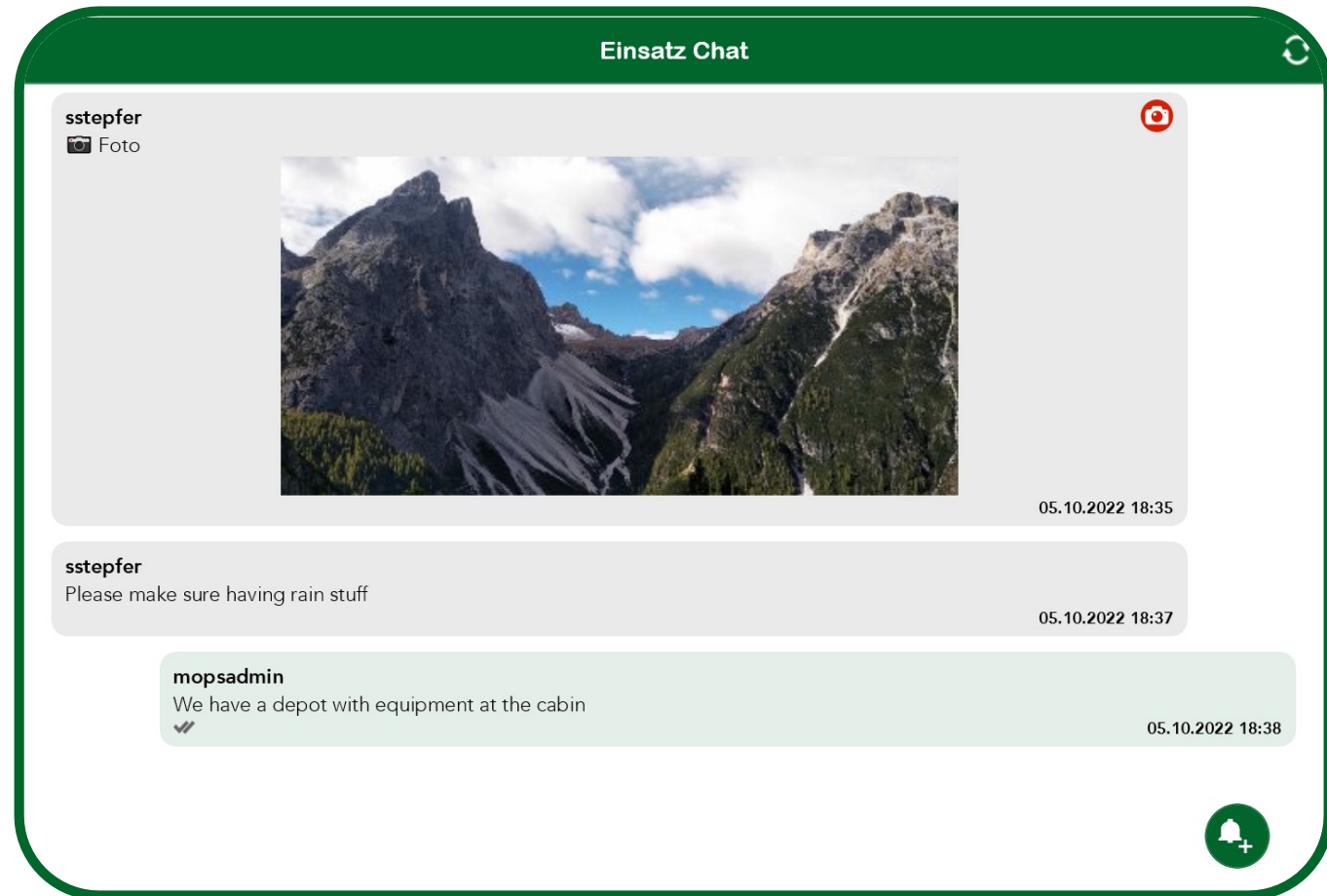
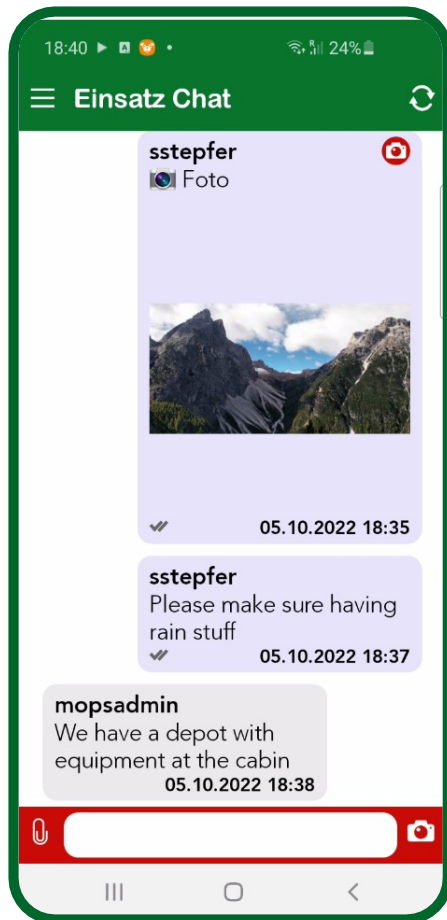


Rescue Operation – Communication to / from Field



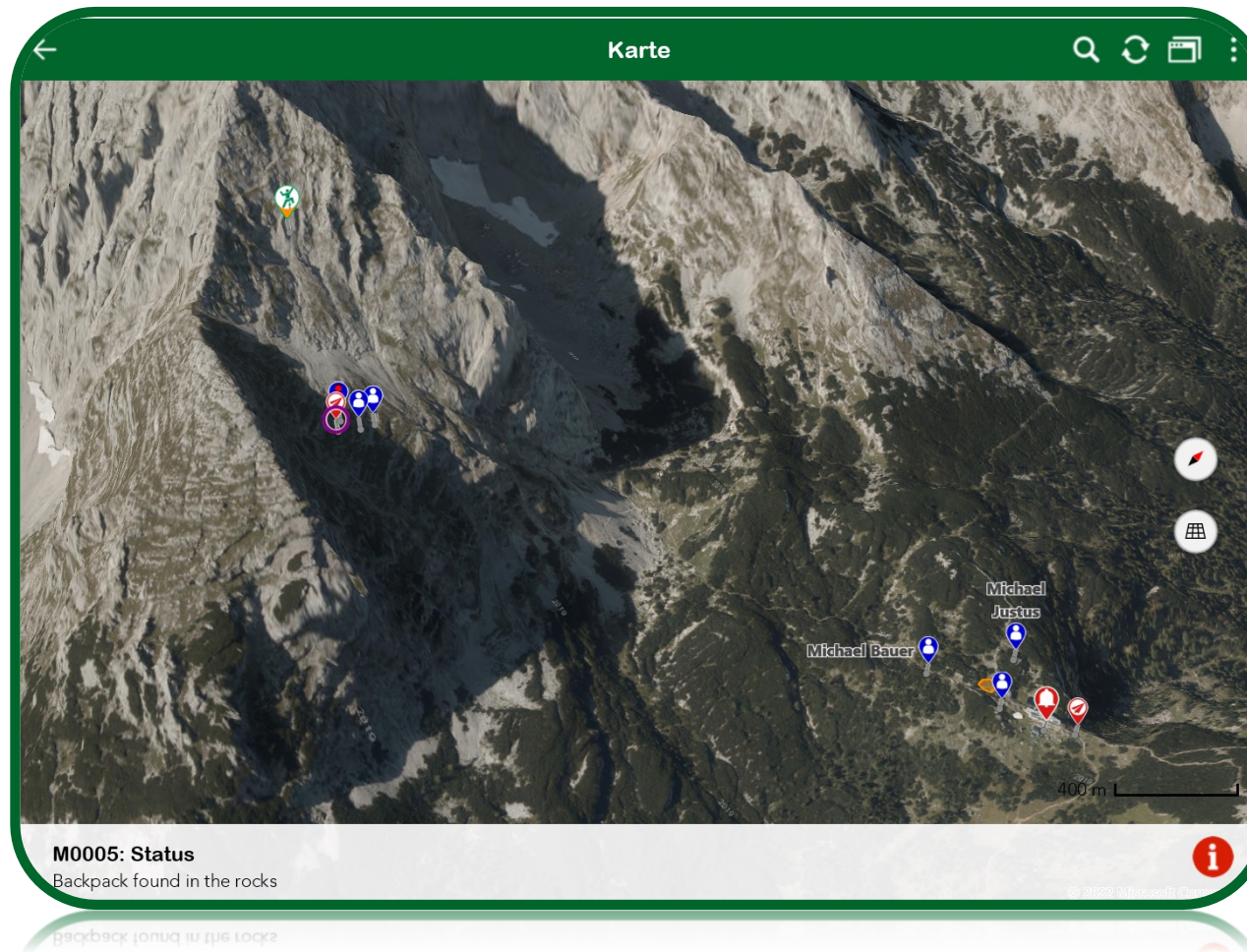


Rescue Operation – Chatting





Rescue Operation – Common Operational Picture





Lessons & Challenges

„Simple and Easy to Use“ is fundamental during critical Operations

The Control Center Users need a wide range Functionality

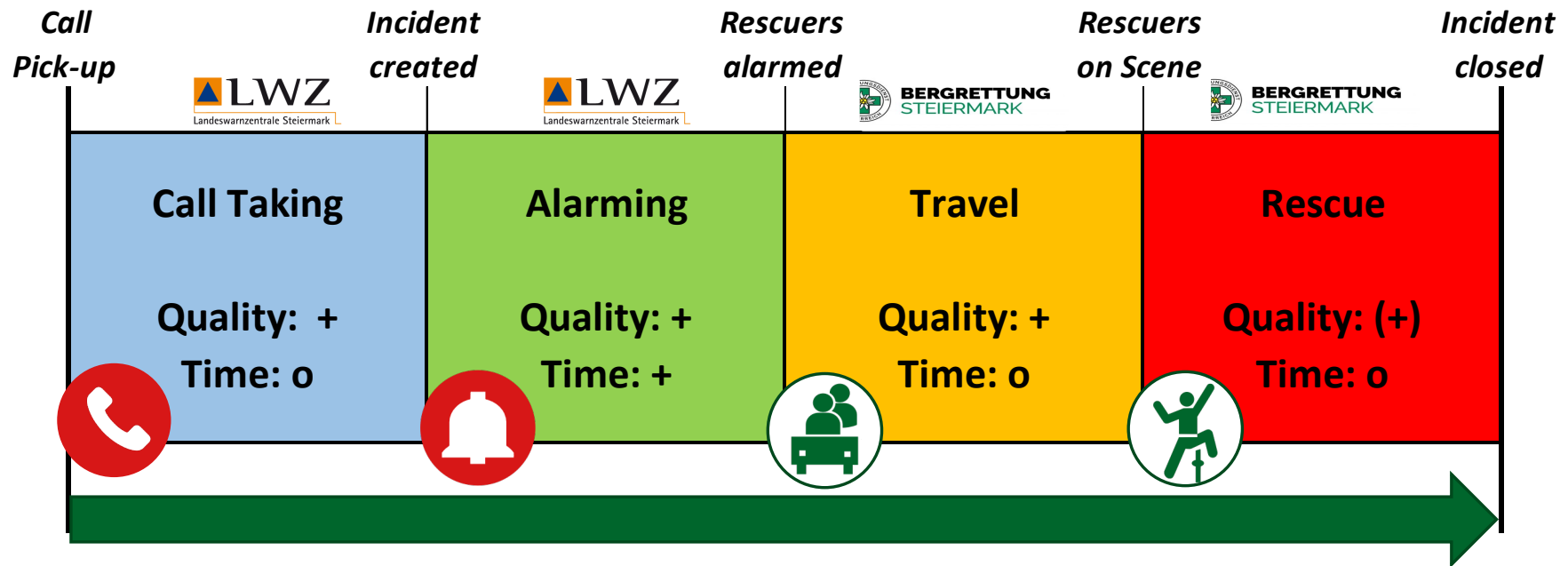
Field Users need streamlined Functionality

Technical Expertise at the field Organization is helpful

The amount of Device Types and Software Versions can be challenging



Achievements - Better Service for People in Distress





Summary

SOTA Technology helps to make Calltaking more precise and Alarming faster.

To improve the Rescue Operation itself is more difficult.

Mobile Apps help to improve Communication & Collaboration within the Field Organization and between the Field and the Control Center

LWZ and BRD in Styria are very synergistic Organizations both providing highly specialized & focused Services for the Public. The Two working together in an Innovation Project produce great Results.



Questions & Discussion

See us at the moPS Booth!



About MOPS GmbH



MOPS GmbH is a technology startup and focuses on developing & providing mobile APPS for the Public Safety & Security market. moPS provides a toolbox to create, deliver and maintain mobile Apps for Public Safety.

www.mops.eu



About Sebastian Stepfer



Sebastian Stepfer is responsible for Sales & Business Operations at moPS GmbH. He is a recognized Senior Executive in the European Public Safety Industry. Sebastian enjoys his free time in the mountains.

sebastian.stepfer@mops.eu