

ÖVSV

ÖSTERREICHISCHER VERSUCHSENDEVERBAND
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E-Mail im HAMNET

ein Pilotprojekt

Gerhard Kmet, OE3ZK

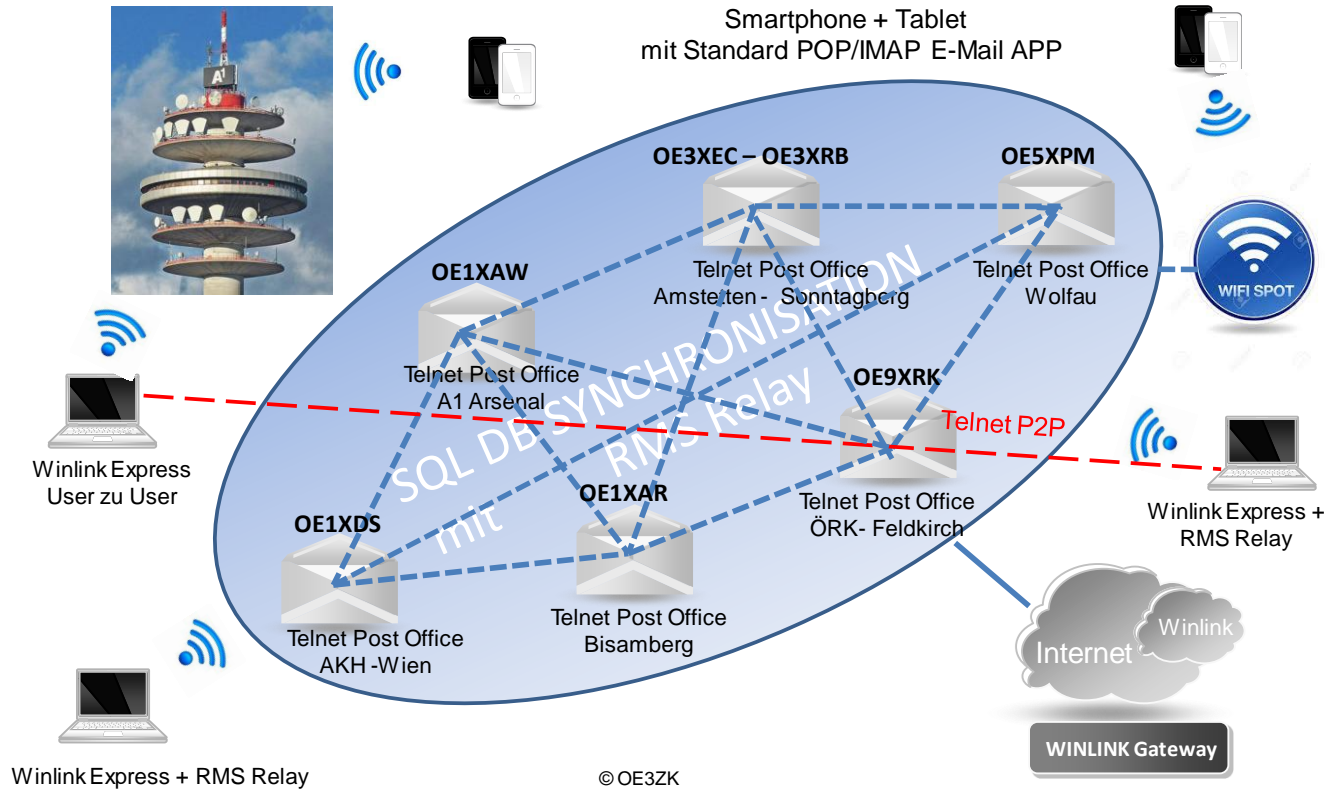


E-Mail im HAMNET

Ziele des Pilotprojektes

- Im Krisenfall: Autark vom Internet
- kompatibel mit: Winlink (Global E-Mail via Funk) und SMTP/IMAP/POP3 (Internet)-Standards
- verwendbar mit mobilen Endgeräten wie z.B. Smartphones, Tablets, Netbooks und: *New Generation Radios* (via WLAN Access Point)
- unabhängig von den Betriebssystemen dieser Endgeräte
- verwendbar nach Kriterien moderner Datenkommunikation (TCP/IP)
- Rückfallebenen zu bestehenden HF- und VHF/UHF-Möglichkeiten
- für die Notfallkommunikation im Amateurfunkdienst

Wireless E-Mail-Server im HAMNET Mesh für die Notfallkommunikation



E-Mail im HAMNET

RMS Relay als Mailserver

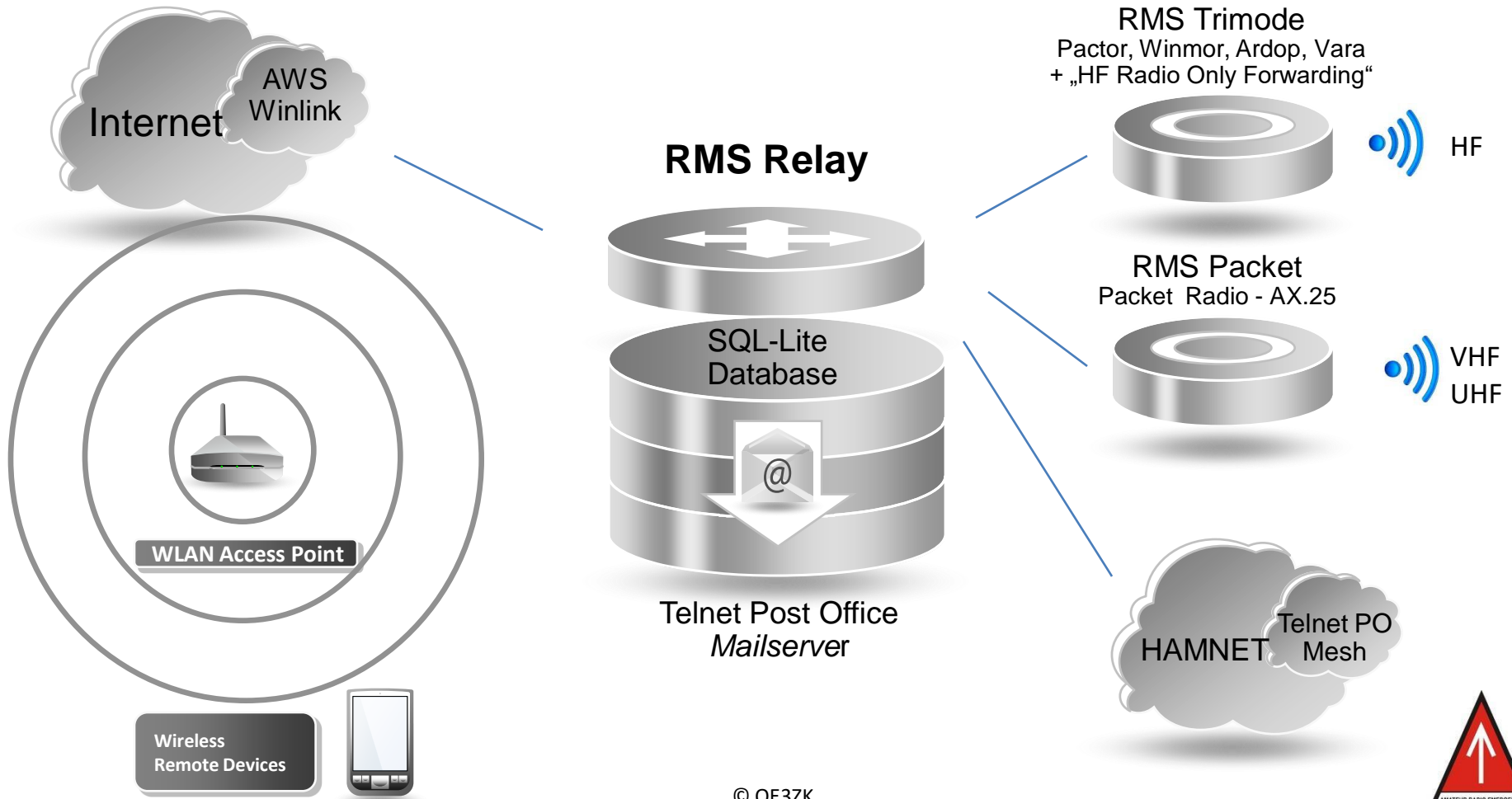
- RMS Relay ist ein bewährtes Windows Programm
- entwickelt vom Winlink Development Team
- im RMS Betrieb: „Drehscheibe“ für RMS Trimode, RMS Packet und für das Forwarding im (Hybrid) „Radio Only Betrieb“
- als „Stand alone Network Post Office - Not part of the Winlink Network“
- u.a. auch im - AREDN - „Amateur Radio Emergency Network“ in den USA
- Mehr > <https://www.aredn.org/>

Bisherige Erfahrungen aus dem Pilotbetrieb:

- Vollkommen autark vom Internet
- Sichere redundante Notstromversorgung (Solarbatterien) und robuste Antennen sind Voraussetzung!
- Benutzer(Client)-SW: Winlink Express, od. div. Standard E-Mail APPs bzw. PAT – plattformunabhängiger Client in Vorbereitung
- Blitzschnelle TCP/IP Datenübertragung (1 MB in ~ 30 sec)
- max. Datenvolumen/E-Mail 4 MB (Vgl: HF/UKW max. 120 kB)
- Hochredundant im Mesh – „Message SYNC between networked servers“
- Geeignet, um in der Notfallkommunikation „Message Handling Bottlenecks“ (Leitstellen) regional zu entlasten
- Beispiele > <https://vimeo.com/258224970>

RMS Relay

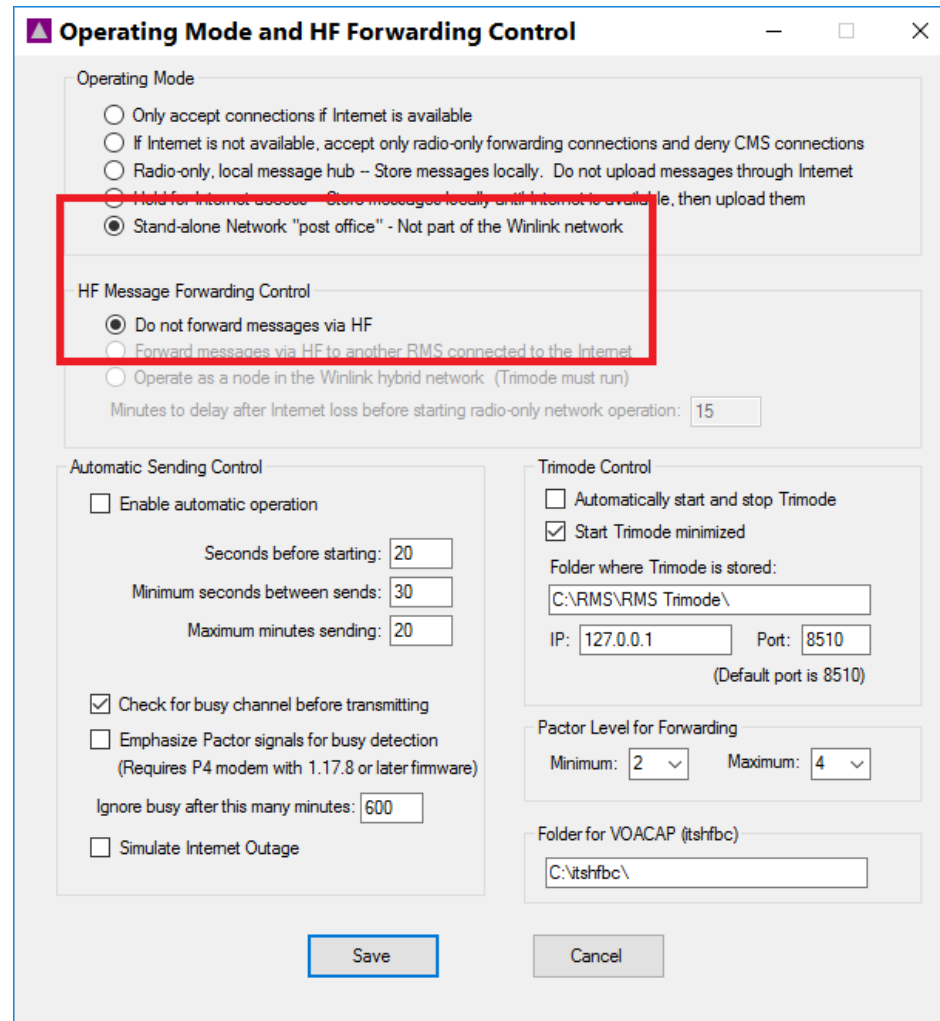
Server-Konfigurationsmöglichkeiten



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E-Mail im HAMNET

RMS Relay als „Stand-alone“ Post Office

A screenshot of a software dialog box titled "Operating Mode and HF Forwarding Control". The dialog is divided into several sections. The "Operating Mode" section has five radio button options, with the last one, "Stand-alone Network 'post office' - Not part of the Winlink network", selected and highlighted by a red rectangle. The "HF Message Forwarding Control" section has three radio button options, with the first, "Do not forward messages via HF", selected and also highlighted by a red rectangle. Below this are input fields for "Minutes to delay after Internet loss before starting radio-only network operation" set to 15. The "Automatic Sending Control" section includes a checkbox for "Enable automatic operation" (unchecked), three input fields for "Seconds before starting" (20), "Minimum seconds between sends" (30), and "Maximum minutes sending" (20), a checked checkbox for "Check for busy channel before transmitting", a checkbox for "Emphasize Pactor signals for busy detection" (unchecked), a text field for "Ignore busy after this many minutes" (600), and a checkbox for "Simulate Internet Outage" (unchecked). The "Trimode Control" section has a checkbox for "Automatically start and stop Trimode" (unchecked), a checked checkbox for "Start Trimode minimized", a text field for "Folder where Trimode is stored" (C:\RMS\RMS Trimode\), an IP address field (127.0.0.1), and a port field (8510) with a note "(Default port is 8510)". The "Pactor Level for Forwarding" section has two dropdown menus for "Minimum" (set to 2) and "Maximum" (set to 4). The "Folder for VOACAP (tshfbc)" section has a text field (C:\tshfbc\). At the bottom are "Save" and "Cancel" buttons.

E-Mail im HAMNET

RMS Relay als Standard E-Mail Server

SMTP/IMAP/POP E-mail Interface Server

SMTP/POP Server Options

- Enable SMTP/IMAP/POP Mail Server
- Force messages to be sent via radio-only HF forwarding

IP Address and Ports for SMTP/IMAP/POP connections

IP address to receive connections: Default

SMTP Port: 20025 (default 25)

POP Port: 20110 (default 110)

IMAP Port: 2143 (default 143)

Access Controls

Client IP restriction: *.*.*

(Use "*" for wildcard. For example 192.168.*.* or 10.*.*)

- Require clients to send passwords with their e-mail logon
- Allow connections from any callsign@winlink.org
- Allow connections from registered Winlink callsigns
- Allow connections only by authorized callsigns (specify below)

Authorized Callsigns

Callsign

Add Callsign

Remove Callsign

Change Password

Save

Cancel

E-Mail im HAMNET

10 „Telnet Post Offices“ im SYNC Betrieb

Message Synchronization

Controls to synchronize messages between networked servers

Controls for this station

- Enable network synchronization
- This is a distributor (reflector) station
- Log details of actions
- Only allow connections from stations in the station list below

Optional password for incoming connections (leave blank if none):

IP address to listen on (leave blank for localhost): Port:

Retry time (minutes):

Response to incoming sync requests: Allow Deny

Enable	Callsign	# Pending	# Tries	Last Try	Last Success	Last Incoming	Address
<input checked="" type="checkbox"/>	DB0ORG	0	0		2018.03.23 18:51	2018.01.22 11:09	44.225.93.70
<input checked="" type="checkbox"/>	DB0RG_10	0	0		2018.03.23 18:51	2018.03.23 10:05	44.225.93.70
<input checked="" type="checkbox"/>	OE1XAR	0	0		2018.03.23 18:52	2018.03.23 10:24	44.143.9.50
<input checked="" type="checkbox"/>	OE1XDS A...	0	0		2018.03.23 18:51	2018.03.23 09:58	44.143.10.90
<input checked="" type="checkbox"/>	OE3FQU	0	2	2018.03.23 18:51	2018.03.23 10:07	2018.03.17 10:23	44.143.49.140
<input checked="" type="checkbox"/>	OE3XEC	0	0		2018.03.23 18:51	2018.03.23 09:59	44.143.49.252



E-Mail im HAMNET

10 „Telnet Post Offices“ seit Sept. 2017 im 24/7 Testbetrieb

Message Synchronization

Controls to synchronize messages between networked servers

Controls for this station

- Enable network synchronization
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- Log details of actions
- Only allow connections from stations in the station list below

Optional password for incoming connections (leave blank if none):

IP address to listen on (leave blank for localhost): Port:

Retry time (minutes):

Response to incoming sync requests: Allow Deny

Enable	Callsign	# Pending	# Tries	Last Try	Last Success	Last Incoming	Address
<input checked="" type="checkbox"/>	OE1XDS A...	0	0		2018.03.23 18:51	2018.03.23 09:58	44.143.10.90
<input checked="" type="checkbox"/>	OE3FQU	0	2	2018.03.23 18:51	2018.03.23 10:07	2018.03.17 10:23	44.143.49.140
<input checked="" type="checkbox"/>	OE3XEC	0	0		2018.03.23 18:51	2018.03.23 09:59	44.143.49.252
<input checked="" type="checkbox"/>	OE3XRB S...	0	0		2018.03.23 18:52		44.143.57.81
<input checked="" type="checkbox"/>	OE5XPM	0	0		2018.03.23 18:52	2018.03.23 10:06	44.143.102.97
<input checked="" type="checkbox"/>	OE9XRK	0	0		2018.03.23 18:52		44.143.225.147



Message ID: L64I7AYHV8RF

Date: 2017/08/26 14:19

From: OE3DNA

To: OE3ZK

Source:

Downloaded-from: Post-office:OE3DNA POST OFFICE

Subject: Re: //WL2K Re: Test vom Handy

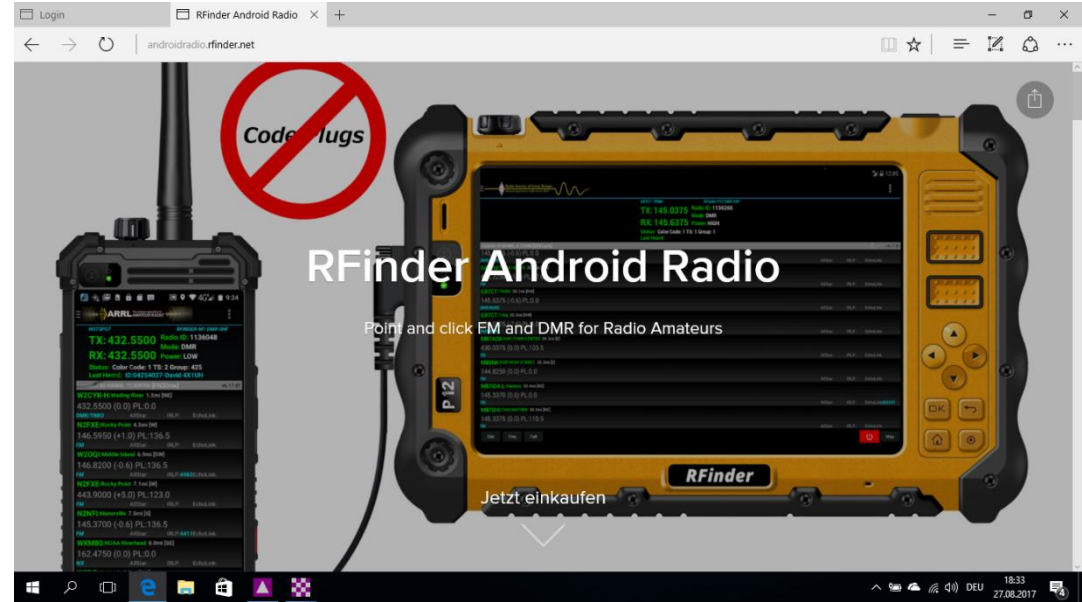
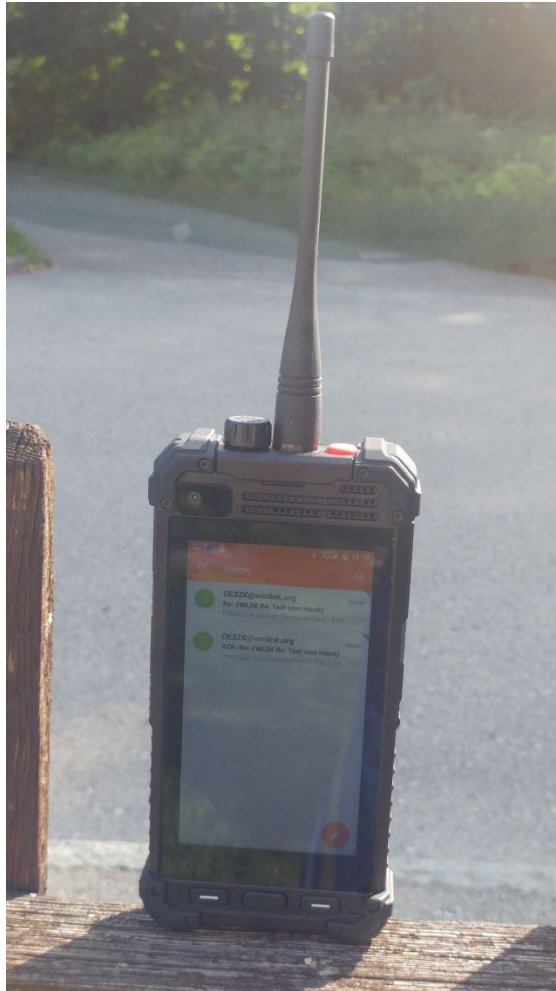
Hallo Gert, anbei das gewünschte Foto.

Ich hoffe, du hast dir das so vorgestellt. Natürlich hab ich das Winlink Mail auch vom Handy (Android NGRadio mit RFinder) via WLAN/HAMNET aus gesendet.

Vy 73 de Andy, OE3DNA

E-Mail im HAMNET

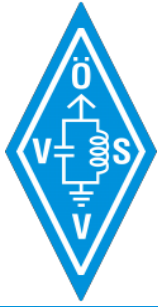
Testing mit Smartphones & NG-Radios via WLAN/HAMNET



Funktioniert bereits auf experimenteller Basis, für sichere Notfallkommunikation aber noch nicht benutzerfreundlich genug.

Wenn alles andere schief geht - Amateurfunk!





ÖVSV

ÖSTERREICHISCHER VERSUCHSENDEVERBAND
WWW.OEVSV.AT

DANKE

OE3ZK Gerhard Kmet

oe3zk@oevsv.at

Mobil: +43 664 2342708



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