

Emergency Health & Welfare Message Service

Overview / Demo

R3EMCOMM
Presentation – 9/14/22

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Agenda

Goals / Objectives

Public Side Demo

Moderator/Operator Demo

How it works

Next Steps + Q&A

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Goals / Objectives

Increase emergency health and welfare messaging capacity by allowing members of the public to use any wireless device with a web browser to directly create, submit and monitor the status of messages.

Increase message efficiency and accuracy by eliminating message entry and transcription tasks, so the amateur radio operator can focus on compliance review and transmission.

Open source, public domain, platform independent

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Public Demo – Home Page

Welcome to eHaW Emergency Health & Welfare Message Service eHaW v0.4 R3EMCOMM Demo and Testing

This service will allow you to send health and welfare email messages to people outside of an emergency event area when local Internet, telephone and cell phone services are not available.

Health and Welfare messages allow you to tell friends, relatives or other people outside of an emergency area about your current situation. Examples might include where you are, your health and condition, any critical needs, your current plans or other details that might help others help you or find comfort in knowing your status.

Your messages ARE NOT PRIVATE! This service is provided by licensed amateur radio operators in your local community, working with operators in other areas. Your messages are visible to anyone with suitable equipment and knowledge. PLEASE DO NOT include account numbers, pin numbers or any other sensitive personal or financial information in your messages.

You can only Send messages. This service cannot receive messages for you.

Federal Law prohibits amateur radio operators from transmitting vulgar, offensive, business communications, any discussion related to illegal activities or content encrypted/encoded to obscure its meaning. Your messages must be reviewed for FCC compliance by the local amateur radio operator and may be accepted and sent, or declined at their sole discretion.

This is a BEST Effort service, provided without charge by amateur radio volunteers in your local community and elsewhere. While we are working hard to support you and the local community, we cannot guarantee or accept any liability of any sort for your messages. Remember please that we are your local neighbors, possibly impacted by the same emergency, doing our best and trying to help...

Using this service indicates you have read, understand and accept the constraints and limitations of this service in the spirit it is offered.

Create Email Message

An email message can contain up to 1000 characters. You will need to enter your name so the recipient will know who the email is from, and 1 or more email addresses for your message will be sent to.

Create Txt Message

Txt (SMS) messages are limited to 85 characters. You will need to enter your name and a telephone number for the person who will receive the txt message. We will also ask you for the recipient's cell phone company.

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Public Demo – Device Adaptive Page Layout

Welcome to eHaW

Emergency Health & Welfare Message Service

eHaW v0.4 R3EMCOMM Demo and Testing

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Create Txt Message

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Public Demo – Create Email

Emergency Health & Welfare Message Service

Create Email Message

eHaW v0.4 R3EMCOMM Demo and Testing

From:

To:

Message:

Everyone is ok for now. We got through the storm without any real damage. Power, telephone and Internet services are out, but the generator is working. We will give you a call when services are restored. Please let the rest of the group know you have heard from us so they can adjust their plans.

Bob

696 characters remaining

Submit

Cancel

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Public Demo – Txt / SMS Message

To:

I don't know!
I don't know!
AT&T
Verizon
T-Mobile
Sprint

Emergency Health & Welfare Message Service
Create Txt (SMS) Message
eHaW v0.4 R3EMCOMM Demo and Testing

From: Bob Segrest

To: AT&T

5402292258

Txt Address: 5402292258@txt.att.net

Message:

Txt (SMS) messages have to be short, 85 characters including your name...

0 characters remaining

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Public Demo – Message Status

- Its Public – All messages can be seen by everyone
- Updated Automatically

Emergency Health & Welfare Message Service					
Message Queue Status					
eHaW v0.4 R3EMCOMM Demo and Testing					
Id	Status	From	Message	Updated	Created
25	Submitted	Bob Segrest	85 characters isn't much, but a phone number is all you have, its golden.		Sep 14, 2022 18:02
24	Accepted	Bob Segrest	Did you notice that your name counts as part of the 85-character limit?...	Sep 14, 2022 18:03	Sep 14, 2022 18:00
23	Sent	Bob Segrest	Both Winlink Express and PAT Winlink include a Welfare Message template under General Forms in the Standard Templates list. The eHaW Moderator formats submitted Email messages into a comparable format, for review and acceptance or decline. As we have significantly reduced the operator burden for message entry, eHaW extend the maximum welfare message size from 500 to 1000 characters. The txt/SMS message standard is technically limited to a total of 160 characters. Some cellular carriers will pass larger messages through their Txt portal but fragmenting them into sequential pieces. The carriers we have tested still impose a limit of some size, and at least 1 cuts the message off after 160 characters. We have to impose some overhead to transmit the message as Email to the cellular portal. This results in the 85 character message limitation imposed by eHaW. And, the senders name is counted as part of this limitation. As a point of reference, this message is 998 characters long.	Sep 14, 2022 13:54	Sep 14, 2022 13:15
22	Declined	Bob Segrest		Sep 14, 2022 14:04	Sep 14, 2022 09:23

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Moderator ???

- A licensed amateur radio operator is responsible for everything that they transmit
- 3rd-Party communications carry additional constraints
- Every message transmitted is tagged with the original operators callsign
- All messages submitted by the public must be reviewed by the responsible operator before is transmitted
- **The Moderator application allows the operator to review and accept or dismiss each submitted message before it is added to Winlink**

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Under Development...

- The initial Moderator code has been added directly to an eHaW variant of the PAT Winlink client
 - While it is functional, it will probably not be added to the general PAT distribution
- Work is in progress to create a new Moderator application
 - GUI, but not web based
 - Distributed as part of eHaW application
 - Will include Administrative interface for setting up new events
 - Will integrate with PAT using its command line interface (cli)
 - Could interface with other Winlink clients in the future

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Moderator/Operator Demo – PAT Process, Ignore

```
C:\Users\bobse\Documents\eHaw>pat process

eHaw Id: 22
Subject: ONE WAY EMAIL-DO NOT REPLY
To: 5402292258@txt.att.net; 5402292258@vtext.com; 5402292258@messaging.printpcs.com; 5402292258@vtmomail.net

If the recipient's carrier isn't known, we can send to the 4 big services.
Bob Segrest

Accept, Reject, or Ignore: i
This message will be ignored for now.
```

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Moderator/Operator Demo – PAT Process, Accept

```
eHaw Id: 23
Subject: Status Radio Email From: Bob Segrest - DO NOT REPLY!
To: bsegrest@bsegmp.com

Radio Email is From: Bob Segrest
It Was Sent From: eHaw v0.4 R3ENCOMM Demo and Testing
Sent at: Sep 14, 2022 13:45
[The following status message is from a family member or friend]
*****
Both Winlink Express and PAT Winlink include a Welfare Message template under General Forms in the Standard Templates list. The eHaw Moderator formats submitted Email messages into a comparable format for review and acceptance or decline. As we have significantly reduced the operator burden for message entry, eHaw extend the maximum welfare message size from 500 to 1000 characters.

The txt/SMS message standard is technically limited to a total of 160 characters. Some cellular carriers will pass larger messages through their Txt portal but fragmenting them into sequential pieces. The carriers we have tested still impose a limit of some size, and at least 1 cuts the message off after 160 characters. We have to impose some overhead to transmit the message as Email to the cellular portal. This results in the 85 character message limitation imposed by eHaw. And, the senders name is counted as part of this limitation.

As a point of reference, this message is 998 characters long.
*****
[PLEASE DO NOT RESPOND TO THIS MESSAGE. IT WILL NOT BE RECEIVED]
This is a ONE WAY email sent by Amateur Radio Operator: [K02F]
via the Winlink Radio System. www.winlink.org
Sent from the above location, to provide information about the above named party(s).
*****
Express Sending Station: K02F
Template Version: eHaw v1.0

Accept, Reject, or Ignore: a
Message posted
{0xc0000923f0 0xc00008e9f0} record updated
```

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Moderator/Operator Demo – Pat Process, Declined

- The responsible operator may Decline any message at their sole discretion
- Message status is set to Declined and the message text is no longer displayed in the eHaW public status display

```
eHaW Id: 22
Subject: ONE WAY EMAIL-DO NOT REPLY
To: 5402292258@txt.att.net; 5402292258@vtext.com; 5402292258@messaging.printpcs.com; 5402292258@vtmemail.net

If the recipient's carrier isn't known, we can send to the 4 big services.
Bob Segrest


Accept, Decline, or Ignore: d
2022/09/14 14:04:14 {0xc000060000 0xc00001c040} eHaW record updated
this message has been Declined and will not be sent.
```

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Moderator/Operator Demo – PAT Demo, Status update

- At the end of each Pat Process operation, the Moderator looks for previously Accepted messages in the Pat Sent folder.
- If a new match is found, the Moderator updates the eHaW status from Accepted to Sent so it can be seen by the public

```
Accept, Reject, or Ignore: i
This message will be ignored for now.
1 eHaW messages set to Sent
C:\Users\bobse\Documents\eHaW>
```



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Moderator/Operator Demo – PAT Connect

- Accepted messages can be sent using the standard PAT cli

```
C:\Users\bobse\Documents\eHaW>pat connect telnet
2022/09/14 12:44:45 Connecting to WL2K (telnet)...
2022/09/14 12:44:45 Connected to 3.208.217.166:8772 (tcp)
[WL2K-5.0-B2FWIHJM$]
;PQ: 95580549
CMS>
>FC EM OXHB7CA463I3 1188 778 0
Sending checksum 8B
FS Y
Remote accepted OXHB7CA463I3
Transmitting [Status Radio Email From: Bob Segrest - DO NOT REPLY!] [offset 0]
Status Radio Email From: Bob Segrest - DO NOT REPLY!: 100%
FF
>FQ
2022/09/14 12:44:46 Disconnected.

C:\Users\bobse\Documents\eHaW>
```

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Moderator/Operator Demo – PAT GUI

- The standard PAT web interface can be used on the same system hosting the eHaW public service and running the PAT Process cli

Status Radio Email From: Bob Segrest - DO NOT REPLY! Action ▾ ✕

Date: 2022-09-14T09:24:00-04:00
From: K02F
To: jeferydavis@comcast.net, mfm255@gmail.com

Radio Email is From: Bob Segrest

It Was Sent From: eHaW v0.4 R3EMCOMM Demo and Testing

Sent at: Sep 14, 2022 09:24

[The following status message is from a family member or friend]

Everyone is ok for now. We got through the storm without any real damage. Power, telephone and internet services are out, but the generator is working. We will give you a call when services are restored. Please let the rest of the group know you have heard from us so they can adjust their plans.
Bob

[PLEASE DO NOT RESPOND TO THIS MESSAGE. IT WILL NOT BE RECEIVED]

This is a ONE WAY email sent by Amateur Radio Operator: [K02F]

via the Winlink Radio System, www.winlink.org

Sent from the above location, to provide information about the above named party(s).

Express Sending Station: K02F
Template Version: eHaW v1.0

ONE WAY EMAIL-DO NOT REPLY Action ▾ ✕

Date: 2022-09-14T09:05:00-04:00
From: K02F
To: 5402292258@tdt.att.net

Txt (SMS) messages have to be short, 85 characters including your name....
Bob Segrest

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Moderator/Operator Demo – Finally...

Status Radio Email From: Bob Segrest - DO NOT REPLY!



KO2F@winlink.org

To: Robert Segrest

Reply Reply All Forward

Wed 9/14/2022 1:49 PM

Start your reply all with: [Thank you!](#) [Got it, thanks!](#) [Thank you very much!](#) [Feedback](#)

Radio Email is From: Bob Segrest

It Was Sent From: eHaW v0.4 R3EMCOMM Demo and Testing

Sent at: Sep 14, 2022 13:45

[The following status message is from a family member or friend]

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As a point of reference, this message is 998 characters long.

[PLEASE DO NOT RESPOND TO THIS MESSAGE. IT WILL NOT BE RECEIVED]

This is a ONE WAY email sent by Amateur Radio Operator: [KO2F]

via the Winlink Radio System. www.winlink.org

Sent from the above location, to provide information about the above named party(s).

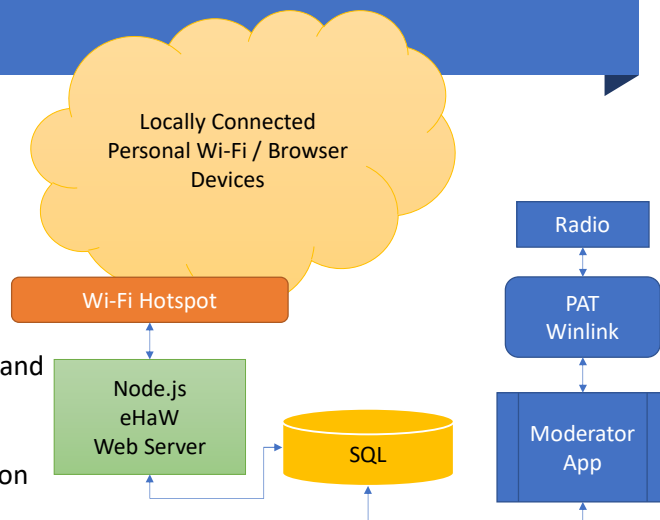
Express Sending Station: KO2F

Template Version: eHaW v1.0

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How it works

- Lots of bits and pieces
 - Wi-Fi Hotspot – Connectify
 - eHaW is written in Node.js
 - Bootstrap for web automation
 - SQL database as the bit in the middle
 - Moderator app ties SQL to Pat and creates operator control
 - Interim Pat based solution
 - Non-web GUI in construction



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Next Steps + Q&A

- First priority is creating the Moderator app
- Scouts International's Jamboree on the Air
 - 10/15/2022 Winlink Demo / eHaW Test?
- Documentation – Deployment guide, Users guide
- This is all “open source” and available on Github
 - Should run on Windows, Ubuntu and PiOs
 - Testing to start on other platforms after Moderator working
- Should be possible to create a one board Pi front end for scalability

What do you think?

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Thank you for listening !!!



Can I get a big **eHaW!**

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