Addressing Traffic to Certified Radio Operators

Approved May 1, 2024

Overview

During a February 2024 presentation, Radio Relay International proposed a new class of radiogram that would be handled in an RRI tunnel within the traffic system by a new class of RRI Registered Radio Operators. In the presentation, the new radiogram class was called "fast telegrams," the tunnel was called a "virtual private network" and the operators in the new class were called "Certified Radio Operators."

During that presentation, those were noted as working titles. Further, the presenter stated that more work needed to be done to define the CRO requirements and how the new class of radiograms would be routed in the Digital Traffic Network and on voice and CW nets. Feedback from Registered Radio Operators was encouraged. This document discusses addressing and routing for the new fast telegram class of radiogram.

The Fast Telegram

The term "fast telegram" originated In the landline telegraph business to designate a message that should have special and more urgent handling. In the postal service, it might be analogous to "registered" or "certified" mail. In RRI's case, the fast telegram is a message that will be handled only by a specially trained RRO (Registered Radio Operator) who has completed a training and certification process. These operators will be designated as CROs (Certified Radio Operators). The CRO education and qualifications are covered in a companion document and will not be addressed further here. Using the title "fast telegram" presents some issues for implementation so this document recommends using the alternate term "certified" radiograms.

Indicating a Radiogram is to be Sent as Certified

To indicate a radiogram is certified requires something within the radiogram itself. Since the current radiogram format is well defined and well known, an indicator within the preamble makes the most sense. The radiogram precedence is already used to control the message's priority. Creation of a new precedence of "certified" which would be indicated by the letter C seems the best approach. Thus, the preamble of a certified radiogram would look like this:

NR 123 C HXE KY2D 12 DAMARISCOTTA ME MAR 15

Routing to a CRO on the Digital Traffic Network

It is expected that most certified radiograms will be routed via the Digital Traffic Network. In the DTN, message routing is determined by a two-part X@Y address, typically zip@NTSxx, where xx is the US state or Canadian province such as 04543@NTSME or for international addresses, call@-xxx, where xxx is the 3-letter ISO country code such as DL4FN@-DEU. Note the dash after the at sign and before the country code. That dash indicates an international destination will follow.

The Digital Traffic Station (DTS) placing the traffic in the DTN uses that X@Y address format in a field outside the radiogram itself when entering the message. The X@Y address is examined by the DTN hub software to determine routing. Looking for the "C" precedence in all message preambles would require new hub software or would slow down message routing waiting for the hub operator to examine the contents of each message.

Accordingly, certified messages must be marked within the DTN address in some way. The portion of the address before the at sign can be used for this purpose. The use of CROxx and CROxxx , where xx is the US State or Canadian province and xxx is the 3-letter ISO country code, is proposed for this purpose. Examples of DTN addresses to be picked up only by a CRO include CROME@NTSME, CRONS@NTSNS, and CRODEU@-DEU.

Use of the above addressing does not disrupt any non-certified traffic flowing through the DTN while the certified traffic is routed only to a CRO in the destination state, province, or country.

Routing to a CRO on a Voice or CW Net

As described in the previous section, a certified radiogram will only be picked up from the DTN by a CRO. The intent is that he/she will be responsible for delivery or further relay on a voice, CW, or manual mode digital net. However, it should only be passed to another CRO or to a traffic handler who the relaying CRO knows will give the message treatment at the level defined in the RRI certified message handling protocol. *Therefore, when checking into a net "with traffic," the CRO who holds the message would list traffic for a specific station on a net, not for a city.*

How DTN Hubs Route to CROs

This section is for DTN hub operators. Nothing needs to be changed in the DTN hub for certified traffic to pass through to other hubs. The existing forwarding rules will handle traffic going to any other hub.

To set up forwarding to a CRO for a state or province within the hub's region, go to the forwarding rules for that CRO station and add CROxx, where xx is the state or province for which that CRO is

responsible. For example, if W2ABC is the CRO for New York, the region 2 hub operator needs to add "CRONY" ("Certified Radio Operator New York") to the "To Calls" forwarding list for W2ABC.

In the case where more than one CRO serves the same state, the CROxx designator needs to be added in the "To Calls" list for both stations and the "NTSMPS" box must be checked in the user record for both CRO stations. Continuing the example, if Both W2ABC and W2DEF are CROs for NY, "CRONY" should be added both in the W2ABC forwarding rules and in the W2DEF forwarding rules. Also, NTSMPS needs to be checked in the user settings for both W2ABC and W2DEF. With that configuration, both W2ABC and W2DEF will pick up NY certified radiograms. Who gets the traffic depends on who checks the hub first after the traffic arrives on the hub. Multiple CROs can self-manage who will be on duty at what times. They can then connect to the hub to check for traffic accordingly. Ideally, each state will have several CROs assigned to ensure reliable processing of certified radiograms under both routine and emergency conditions.

Feedback and Questions

Questions and comments are always welcome. Please send them to a member of the ad hoc RRI addressing committee: Jim KY2D, Steve, KB1TCE, or Ray, N3HYM.