Limit Radio Usage Using CIM-2000 and C Plus

Are your radio users filling the available airtime chatting amongst themselves? Need to control radio usage? This is a solution used widely in the transit industry. Any user can communicate with dispatch, but without approval, no one can talk to any other user. This feature is available only in systems that use GE Star signaling.

Communications Procedure:
All radios in the field have a Cimarron CIM-2000 installed in them and are using GE-Star signaling. The CIM-2000 is programmed for "UNMUTE on SEL CALL". This keeps the radio receiver speaker disabled unless activated by the receipt of a selective call message sent by the dispatcher.

All radios are capable of transmit, so anyone can contact the dispatcher at any time. If vehicle 1234 needs to talk to dispatch, he calls them like normal. The dispatcher then sends a digital message to 1234's radio, activating the receiver speaker. Communications proceeds like normal and when completed, the dispatcher sends another digital message disabling 1234's receiver again.

If vehicle 1234 desires to talk to 5678, he contacts dispatch, telling them his desires. The dispatcher sends two encoded messages, activating both 1234 and 5678's receiver speaker. If the dispatcher desires to talk to the entire fleet, one digital message activates all receivers.

Unmute on selective call is useful for systems where talk between users is not allowed. Upon power-up, the mute line of the CIM-2000 becomes active, muting the radio speaker amplifier. If the dispatcher desires to communicate with the unit, a selective call is transmitted, deactivating the mute line, and the receive audio is allowed to pass to the speaker. When the communications are completed, the dispatcher sends a "call cancel" message, and the target radio is again muted.

How to make it work:
A properly installed CIM-2000 will already have the mute capability. The device will need to be programmed for "Un-mute on Selective Call". This feature is only supported in the GE Star signaling format. The C Plus will also require either the Cimarron CDT or a computer interface with dispatching software. Additional information on the CDT and dispatching commands, refer to "*Operating with a Cimarron CDT*" and "*Encode Capability*".

Additional Information:
At the CIM-2000, it is important to collect the RX Audio for data input in an earlier stage of the radio receive system than the insertion point for mute output. If these two insertion points are too close, the CIM-2000 will mute the received data as well as the receiver speaker.

See Also:
Encode Capability

Operating with a Cimarron CDT

Data Output

Data Input

Channel Busy