



IDAS Digital “Receiver Voting” can clear up marginal coverage areas at minimal cost?

What is it?

It is a combination of one or many digital sub receivers added to the IDAS network to provide transmit assistance for field subscriber units attempting to reach the main tower site. These field subscriber units will eventually find areas that are “dead spots” due to many factors. These “dead spots” can be due to terrain, structures or buildings newly erected after the system was initially designed. In order to effectively increase the chances of radio coverage from those areas back to the main site, companies for years have been placing analog receiver sites in the field to assist. The cost of that type of solution is fairly high and usually requires long technical hours for tuning. The additional hardware required is costly as well.

Now IDAS has a way to do digital “Receiver Voting” at a much lower cost.

Benefits:

The benefits of using “Receiver Voting” are:

1. It improves the transmit capability of your IDAS subscriber portables and mobiles
2. Only one transmit and one receive frequency are required
3. The network controller has a built in voting function, so no external voter devices are needed as in a comparator and tone generators.
4. No additional costs incurred for extensive tuning by your technicians in the field.

Who can use this?

This application can be used by:

-Home Repair Companies
-Transportation companies
-School District Bussing

County Wide EMS
Delivery Companies
City Transportation

Public Safety
Taxi Companies

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How does this work?

Because the subscriber units have a much smaller transmit power and the antenna and ground clearance are poor compared to the repeater, there are areas in which one can receive the repeater transmit signal, but the signal from the subscriber unit does not reach the repeater. For those areas, a sub repeater that is set to RX only can be used to assist the subscriber signal in receiving and sending it to the main repeater via IP.

When setting up multiple repeaters to help receive the subscriber signals, then the main network controller will receive the same transmit signal from multiple locations, and choose the best one from those locations (the one with the strongest RSSI level) This feature is called "Receiver Voting" because it can choose which received signal is strongest and best to use.

Required Equipment:

The equipment required to set up a Digital "Receiver Voting" System:

1. FR5000/6000 Digital Repeater at the Main and Receive only locations.
2. UC-FR5000 Network Controller installed in each FR5000/6000 in the system
3. CF-FR5000 Card for each Repeater
4. A VPN Router configured at each location
5. IP Connectivity at each location.