

Interoperability Specifics

An individual RF interface link (a talk-path) will be provided to each county and independent city to bring interoperability at no cost to the jurisdiction. A fixed radio placed at one of the 94 STARS transmitter sites will include a specific talk group or channel as determined by the locality. Each fixed radio will appear as a mobile radio on the locality radio network. When an interoperability connection is needed, the appropriate locality and State Police dispatchers will communicate by telephone to establish a patch. STARS can provide additional locality interface links as future funding and radio frequencies become available.

In a wide scale emergency where the situation warrants, localities may be interconnected with each other in this same manner to establish regional communications. These locality interface links can also be used to interconnect locality radio talk-groups or channels with each other independent of a STARS talk-group.

In-band VHF and 700/800MHz direct, radio-to-radio communications on locality radio networks, is also possible if the situation warrants using the mobile and portable radios. Note that when direct communications is employed on both non-STARS VHF and 800 MHz frequencies, the STARS user will lose contact with their agency dispatcher, and their emergency alert feature on the radio will not be functional because they are on the locality radio system. Additionally, when direct VHF is used via the vehicle's radio, mobile data transmissions will be suspended and automatic vehicle location (AVL) will not be functional.

The STARS Project Management Team is considering a VoIP based interoperability solution in lieu of, or in addition to, the RF interface architecture described above. Implementing a VoIP approach is highly dependent on the quantity and quality of radio frequencies available at each of the STARS transmitter sites. The potential loading increase on the STARS spectrum resources will be assessed prior to redesigning the network for a VoIP solution. A pilot project using this technology is being designed for the Richmond area.

Localities and federal organizations may be added as full-time STARS users/partners when feasible. The addition of any users/partners will necessitate additional VHF radio channels to cover the additional requirements. STARS is designed primarily for mobile radio coverage. Accordingly, additional transmitter sites may be necessary if greater portable radio coverage is required to meet a locality's requirements.