



Palmetto 800 Radio Network



THE SOUTH CAROLINA
DEPARTMENT *of* ADMINISTRATION

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Palmetto 800: South Carolina's Public-Private Statewide Communications Network Partnership

The South Carolina Statewide 800 MHz Radio and Mobile Data System, known commonly as Palmetto 800, is a cost-shared public/private partnership between state government, local governments, power utilities and Motorola Solutions, Inc. The system is a Motorola P25 - 7.17 Core.



The goal of the shared Palmetto 800 system is to provide public safety grade statewide coverage, enhance statewide interoperability and provide agencies with a superior communications technology at an economical price to meet their public safety communications needs.

In operation since 1992, the network continues to expand and evolve to meet public safety responder needs. Today, the Palmetto 800 network is one of the largest shared statewide radio networks in the nation with over 50,000 users. Over 850 agencies representing state government, federal government, local government, law enforcement agencies, fire services, EMS services, and power utilities in South Carolina, North Carolina, and Georgia currently participate in the shared, statewide 800 MHz radio network.

All South Carolina county, emergency management agencies and 911 centers have been provided with radios to access to the Palmetto 800 system for interoperability and disaster response coordination.

The South Carolina Department of Administration's Division of Technology Operations (DTO) manages the system with the support of an elected advisory committee which ensures user input into the system's oversight. DTO administers the Palmetto 800 Network and provides significant direct support including ESF-2 functionality, the state's cache of communications radios, mobile radio towers, mobile satellite trailers (data, Voice over Internet Protocol phone and two-way radio services) and the state's communications strike team.

South Carolina continues to receive top rankings nationally for its interoperability efforts associated with the Palmetto 800 and Palmetto Tactical Communications Network (PATCON) systems.

Palmetto 800 System Administration

The Statewide Trunked 800 MHz radio and mobile data system (known as the Palmetto 800 MHz Radio System) contract is administered by the South Carolina Department of Administration's Division of Technology Operations (DTO). The Palmetto 800 network is funded by monthly user fees. The current contract period runs through June 30, 2023. If you have any questions, please contact one of the following staff members listed below:

- **Bob Steadman**
Statewide Interoperability Coordinator (SWIC)
FirstNet State Point of Contact (SPOC)
Phone: 803-896-7091
Email: rsteadman@sled.sc.gov

- **Richard Weaver**
State Frequency Coordinator
Phone: 803-896-5238
Email: richard.weaver@admin.sc.gov
- **Dennison Coomer**
Logistics Manager
Phone: 803-896-0731
Email: dennison.coomer@admin.sc.gov

Operational Management

Operational management of the Palmetto 800 MHz Radio Network is provided by State Contract to Motorola Solutions, Inc. DTO, Motorola and the 800 Users Advisory Committee work together cooperatively to help provide cost saving and manage the cost of operating the statewide system.

24-hour System Monitoring and Support is provided by Motorola. The 24-hour contact number is 800-353-0101.

Users Advisory Committee

Network user input is provided by the Statewide 800 Users Advisory Committee (800 Advisory Committee). To ensure the contract provider of the statewide radio system is fully aware of DTO's cooperative management style with the users of the Palmetto 800 System, the 800 Advisory Committee and cooperative manage style of the system is written into the State Contract with Motorola.

The Palmetto 800 Advisory Committee Advisory Committee Members are elected to two-year terms by the system users. Advisory Committee Member positions represent:

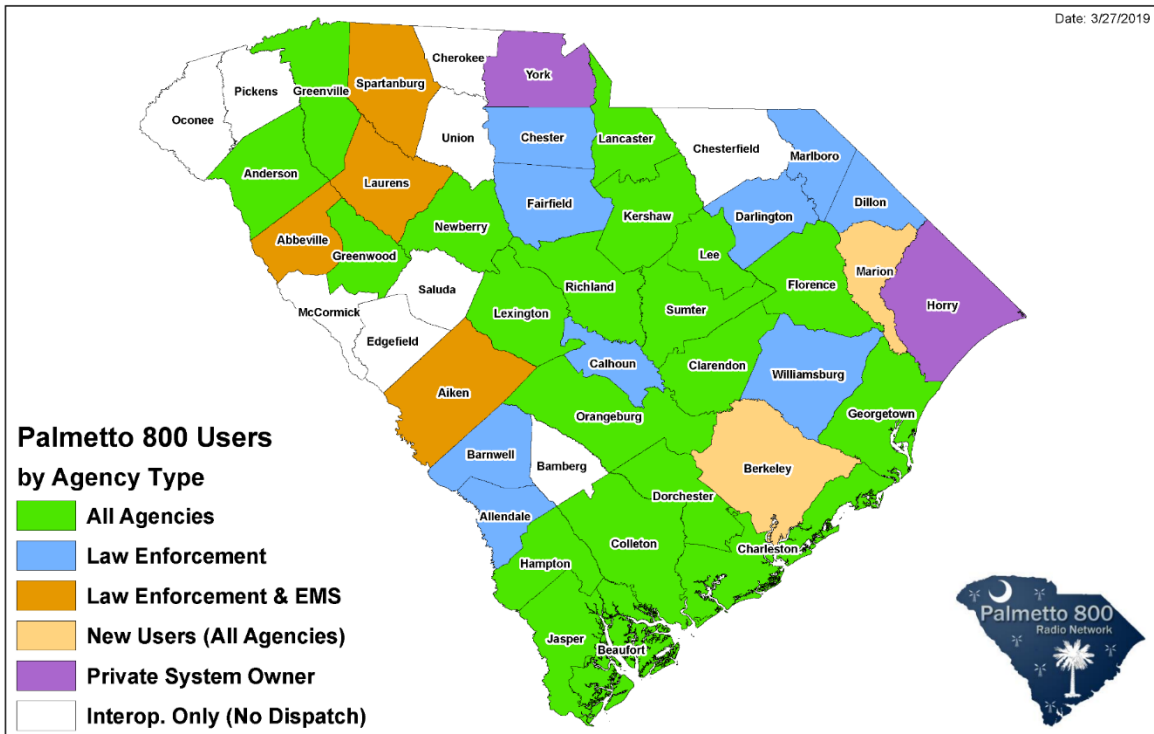
- State law enforcement
- Local law enforcement
- Fire
- EMS
- Emergency management
- Power utilities
- Large system users (over 500 units)
- At-large state government users
- At-large local Government users.

A systemwide Users Group meeting is held in the fall and spring of each year. All system users are invited to attend these meetings.

For additional information or support, please email palmetto800@admin.sc.gov.

To view the Palmetto 800 User Map, please [click here](#).

Palmetto 800 User Map



Palmetto 800 Radio System Details

Statewide Radio System

The Palmetto 800 MHz radio system is a unique partnership between state government, local governments, public safety agencies, power utilities and Motorola, Inc.

Transmitter Sites

System transmitter sites are designed with maximum redundancy. Each site is equipped with generator backup power. Most sites are equipped to operate using a DC rectifier system that enables the site to operate for up to 24 hours after commercial and generator power have been lost. If an individual transmitter site loses connectivity with the network (site trunking) it will continue to operate as an independent trunked site.

System Monitoring

Motorola provides 7X24 monitoring of the statewide system through the System's Zone Watch and MOSCAD system.

Talkgroup Guidelines

To manage system loading, users are provided one primary talkgroup for every 25 radios and one statewide roaming talkgroup for every 100 radios they have on the Palmetto 800 system. Please use the Talkgroup Request Form for special request of additional talk groups.

Talkgroup Sharing

All system users are required to have written approval from the agency a talkgroup/frequency is assigned to before programming the talkgroup or frequency into a radio. Written approval is not required for programming and use of State Mutual Aid talkgroups, 8SCTAC and 8TAC mutual aid frequencies.

System Cost

User costs are based on the number of trunked transmitter sites an agency needs for primary radio coverage of its jurisdiction.

System Key

System keys for the Palmetto 800 System are the property of Motorola, Inc. and are not to be copied or given to anyone except those with written authorization to have a system key. All holders of system keys for the Palmetto 800 System must have a signed agreement on file with Motorola-Palmetto 800 for its use. Holders of pirated copies of system keys are subject to legal prosecution.

Purchasing 800 MHz Radios

The Palmetto 800 System is an all-digital P25 system. All new control stations, mobiles and portable radios purchased for use on the Palmetto 800 System shall be SmartZone capable, have a 100 plus talkgroup/channel capacity and support the P25 digital standard.

Use of Stubby (3") Antennas

Agencies utilizing the Palmetto 800 System should not utilize stubby antennas on their 800 MHz handheld radios. The short stubby antenna should only be utilized in conjunction with the public safety speaker mic and attached to the speaker mic "only." Testing on the system has shown that use of the stubby antenna attached directly to the handheld radio will reduce the effectiveness, operating range and in-building coverage of the radio. Agencies (especially public safety agencies) should implement a policy to prohibit the use of stubby antennas attached directly to handheld radios.

Disaster Operations

To help manage system loading and to increase agency interoperability during local or state disasters, all Palmetto 800 users must include the utilization of the statewide 800 MHz conventional repeater (ITAC's & SCTAC's) system as part of their communications plans. See the Coverage Map for additional information.

Essential Operations Plans

All users of the Palmetto 800 System are required to submit an Essential Operations Plan to Motorola for review by the 800 Advisory Committee on an annual basis. The Essential Operations Plan provides critical contact information for an agency, a listing of agency talkgroups and the agency's plan to reduce talkgroups if needed during a major local or statewide emergency. Plans must include a 50% reduction in talkgroups and the off-loading of some operations to conventional 800 MHz channels. See the Essential Operations page for additional information.

Interconnecting to the Palmetto 800 System

The Palmetto 800 Radio System and its licensees prohibit two-way interconnecting or the connecting of the Palmetto 800 System to other radio systems, telephone systems, cellular systems or any system that brings additional/outside loading to the system without written approval of the Palmetto 800 MHz Advisory Committee. See the Interconnect Guidelines page for additional information.

Palmetto 800 Infrastructure Providers

Motorola, the state of South Carolina, Lexington County, Spartanburg County, Pickens County, Georgetown County, New Horizon Electric Cooperative, and South Carolina Electric and Gas (SCE&G)/Dominion Energy provide the system's infrastructure.

Palmetto 800 Frequency Providers

The state of South Carolina, SCANA/SCE&G/Dominion Energy, Lexington County, Spartanburg County, Augusta-Richmond County, Ga., Richland County, Jasper County, Georgetown County, Orangeburg County, and Charleston County provide frequencies for use on the Palmetto 800 system. To view the Palmetto 800 User Map, please click [here](#).

SC Mutual Aid Talkgroups and Channels

To support statewide interoperability, all users of the South Carolina Palmetto 800 Network are required to have all Regional Mutual Aid, Statewide Mutual Aid, Itinerant Tactical (8TAC) and South Carolina Tactical (8SCTAC) talkgroups/channels pre-programmed into their 800 MHz radios. Law enforcement agencies should also include the Law Enforcement Mutual Aid Talkgroups.

Regional Mutual Aid Talkgroups

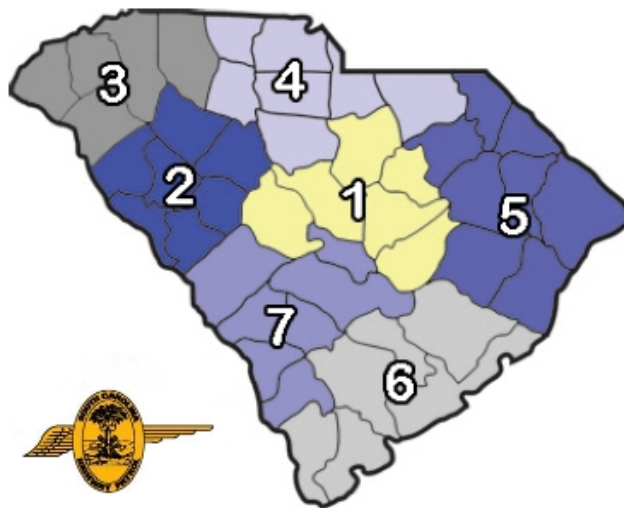
CHANNEL COMMON NAME	NAME	HP TROOP
CALLING CHANNEL	SCCALL	Statewide

REGION 1 COMMON <i>Counties: Richland, Lexington, Kershaw, Lee Sumter, Clarendon</i>	REG01	Troop #1
REGION 2 COMMON <i>Counties: Abbeville, Laurens, Greenwood, Newberry, Saluda, Edgefield, McCormick</i>	REG02	Troop #2
REGION 3 COMMON <i>Counties: Spartanburg, Greenville, Anderson, Pickens, Oconee</i>	REG03	Troop #3
REGION 4 COMMON <i>Counties: York, Cherokee, Union, Chester, Lancaster, Fairfield, Chesterfield</i>	REG04	Troop #4
REGION 5 COMMON <i>Counties: Marlboro, Darlington, Florence, Dillon, Marion, Horry, Georgetown, Williamsburg</i>	REG05	Troop #5
REGION 6 COMMON <i>Counties: Colleton, Jasper, Beaufort, Berkeley, Dorchester, Charleston</i>	REG06	Troop #6
REGION 7 COMMON <i>Counties: Aiken, Barnwell, Allendale, Hampton, Bamberg, Orangeburg, Calhoun</i>	REG07	Troop #7
REGION 8 COMMON <i>Assignable for special events/emergencies (coordinate with EMD/DTO/Motorola).</i>	REG08	Assignable
REGION 9 COMMON <i>Assignable for special events/emergencies (coordinate with EMD/DTO/Motorola).</i>	REG09	Assignable
REGION 10 COMMON <i>Assignable for special events/emergencies (coordinate with EMD/DTO/Motorola).</i>	REG10	Assignable

Sites for Regional Talkgroups conform to the South Carolina Highway Patrol Troop regions. These sites are monitored by the South Carolina Highway Patrol.

SOUTH CAROLINA HIGHWAY PATROL

TROOP REGIONS



Dynamic Regrouping

Dynamic Regrouping (Dyn Reg) should be channel 16 in Zone 1 of your radio. This feature offers tremendous flexibility and interoperability capabilities to our statewide system. Dynamic Regrouping enables the Palmetto 800 Network Operations Center (NOC) to remotely create or assign any talkgroup to the Dyn Reg channel in your radio. When responding to a regional or statewide emergency, an agency can notify the Palmetto 800 NOC of the radio IDs it is sending to assist in the emergency and the NOC can then assign the talkgroup being utilized to the Dyn Reg channel in the radio. It is highly recommended that this feature be programmed to all radios with access to the statewide system.

Air-to-Ground Talkgroups

The primary use of these talkgroups is for coordinating operations between aircraft and units on the ground, helicopter landings and takeoffs at accident scenes, hospitals and other locations. Secondary use (if the air-to-ground channel is congested) will be for coordination with all types of aircraft conducting search and rescue operations, manhunts, firefighting, aerial surveillance, hurricane evacuations and other events. Effective Sept. 1, 2018, all Palmetto 800 users use these talkgroup to promote a safe and efficient operating environment for these specialized operations. The statewide map can be seen [here](#).

Statewide Mutual Aid Talkgroups

CHANNEL COMMON NAME	NAME
SC CALLING CHANNEL <i>Statewide emergency calling channel, monitored by EMD and SHP.</i>	SCCALL
CHANNEL 1	SCMA01
CHANNEL 2	SCMA02
CHANNEL 3	SCMA03
CHANNEL 4	SCMA04
CHANNEL 5	SCMA05
CHANNEL 6	SCMA06
CHANNEL 7	SCMA07
CHANNEL 8	SCMA08
CHANNEL 9 <i>Pre-assigned to Clemson University home football games.</i>	SCMA09
CHANNEL 10 <i>Pre-assigned to University of South Carolina football and baseball games.</i>	SCMA10
CHANNEL 11	SCMA11
CHANNEL 12	SCMA12
CHANNEL 13	SCMA13
SC AIR TO GROUND – (SEARCH AND RESCUE OPERATIONS) <i>For coordinating air-to-ground search and rescue operations statewide.</i>	SCAIR-GRD

SC AIR TO GROUND 1 – (AIR MEDICAL OPERATIONS) <i>Upstate and Midlands Counties: Abbeville, Aiken, Anderson, Cherokee, Chester, Edgefield, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, Lexington, McCormick, Newberry, Oconee, Pickens, Richland, Saluda, Spartanburg, Union, York</i>	SC AIR 1
SC AIR TO GROUND 2 – (AIR MEDICAL OPERATIONS) <i>Pee Dee Counties: Chesterfield, Clarendon, Darlington, Dillon, Florence, Georgetown, Horry, Lee, Marion, Marlboro, Sumter, Williamsburg</i>	SC AIR 2
SC AIR TO GROUND 3 – (AIR MEDICAL OPERATIONS) <i>Low Country Counties: Allendale, Bamberg, Barnwell, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg</i>	SC AIR 3

Mutual Aid Talkgroups

Mutual Aid Talkgroups are available for use to support emergencies, special events or any situation where interoperability is needed. The use and assignment of Mutual Aid Channels is coordinated by DTO's public safety communications staff (palmetto800@admin.sc.gov or call 803-734-2666).

Law Enforcement Talkgroups

Law Enforcement Talkgroups are monitored by the South Carolina Department of Public Safety (SCDPS). These talkgroups are distributed to users for special events by David McClun (RadioOps@scdps.org or call 803-968-4617).

CHANNEL COMMON NAME	NAME	HP TROOP
LAW ENFORCEMENT CALL	LECALL	Statewide
LAW ENFORCEMENT COMMON 1 <i>Counties: Richland, Lexington, Kershaw, Lee, Sumter, Clarendon</i>	LEC01	Troop #1
LAW ENFORCEMENT COMMON 2 <i>Counties: Abbeville, Laurens, Greenwood, Newberry, Saluda, Edgefield, McCormick</i>	LEC02	Troop #2
LAW ENFORCEMENT COMMON 3 <i>Counties: Spartanburg, Greenville, Anderson, Pickens, Oconee</i>	LEC03	Troop #3
LAW ENFORCEMENT COMMON 4 <i>Counties: York, Cherokee, Union, Chester, Lancaster, Fairfield, Chesterfield</i>	LEC04	Troop #4
LAW ENFORCEMENT COMMON 5 <i>Counties: Marlboro, Darlington, Florence, Dillon, Marion, Horry, Georgetown, Williamsburg</i>	LEC05	Troop #5

LAW ENFORCEMENT COMMON 6 <i>Counties: Colleton, Jasper, Beaufort, Berkeley, Dorchester, Charleston</i>	LEC06	Troop #6
LAW ENFORCEMENT COMMON 7 <i>Counties: Aiken, Barnwell, Allendale, Hampton, Bamberg, Orangeburg, Calhoun</i>	LEC07	Troop #7
LAW ENFORCEMENT COMMON 8 <i>Assigned to the Highway 278 Hurricane evacuation route in Beaufort, Jasper, Hampton and Allendale counties.</i>	LEC08	Special/Assignable
LAW ENFORCEMENT COMMON 9 <i>Assignable for special events/emergencies (coordinate with Highway Patrol).</i>	LEC09	Assignable
LAW ENFORCEMENT COMMON 10 <i>Assignable for special events/emergencies (coordinate with Highway Patrol).</i>	LEC10	Assignable
LAW ENFORCEMENT COMMON 11 <i>Assignable for special events/emergencies (coordinate with Highway Patrol).</i>	LEC11	Assignable
LAW ENFORCEMENT COMMON 12 <i>Assignable for special events/emergencies (coordinate with Highway Patrol).</i>	LEC12	Assignable
LAW ENFORCEMENT COMMON 13 <i>Assignable for special events/emergencies (coordinate with Highway Patrol).</i>	LEC13	Assignable
LAW ENFORCEMENT COMMON 14 – (Encrypted) <i>Assignable for special events/emergencies (coordinate with Highway Patrol).</i>	LEC14	Assignable
LAW ENFORCEMENT COMMON 15 – (Encrypted) <i>Assignable for special events/emergencies (coordinate with Highway Patrol).</i>	LEC15	Assignable

Policy for Mutual Aid Talkgroups and Channels

All agencies should utilize local conventional Mutual Aid Channels as part of their special event and emergency communications planning. If you need assistance with planning, please contact the Division of Technology Operations (Palmetto800@admin.sc.gov or call 803-734-2666). If you need communications assistance or on-scene support during an emergency or disaster and cannot reach DTO staff, contact the State Warning Point (803-737-8500) and ask them to contact the DTO staff.

All Mutual Aid talkgroups (Regional, Statewide and Law Enforcement) and Mutual Aid conventional repeaters shall not be used for routine daily operations or as ongoing working channels by any agency. These channels shall be reserved for training, special or community events and incidents requiring multiagency responses.

All use of Mutual Aid Talkgroups or Repeaters for special events or emergencies is to be coordinated with the appropriate agencies.

Mutual Aid Talkgroups may be reconfigured for the special event or scene to provide only the coverage needed for that incident. If you have difficulty contacting a DTO staff member for assistance on the weekend or after hours, contact the South Carolina Emergency Management Division (803-737-8500) or Motorola (800-353-0101).

Dynamic Regrouping – The Dynamic Regrouping feature allows for the instantaneous addition of a talkgroup not preprogrammed into the radio. This feature can only be activated by the Palmetto 800 NOC. When calling the NOC to have a talkgroup dynamically regrouped, you will need to have your radio ID# and the talkgroup name and number (if known) to be added. If you need assistance, contact the communications coordinator on scene or DTO staff on scene if deployed. Please note, this feature may not be available on all manufacturer's radios.

Special event use of a PATCON 800MHz conventional repeater should be coordinated with the agency providing direct control of the Mutual Aid channel. Use of the channel shall not interfere with emergency or disaster situations. If an emergency or disaster situation develops, the agency providing direct control of the Mutual Aid channel under its authority may terminate the special event use of the Mutual Aid channel.

Plain English will be used at all times on all Mutual Aid Channels. The use of unfamiliar terms, codes or signals is not allowed.

The use of Repeater Interface Connection (RIC) switches or patching devices are not allowed on any of the Mutual Aid Channels configured in the statewide mode. Users must adhere to all interconnect guidelines and policies.

The use of RIC switches or patching devices to connect to the Palmetto 800 System must be approved by the 800 MHz Advisory Committee and Motorola. Users must adhere to all interconnect guidelines and policies.

Telephone interconnect (i.e., telephone patching) is prohibited on all Mutual Aid Channels.

Agency Contacts

TALKGROUPS	AGENCIES
Assignable Regional Mutual Aid Talkgroups	Coordinate with the Division of Technology Operations (Palmetto800@admin.sc.gov or call 803-734-2666)
Statewide Mutual Aid Talkgroups	Coordinate with the Division of Technology Operations (Palmetto800@admin.sc.gov or call 803-734-2666)

Air-to-Ground Talkgroup	Coordinate with the Division of Technology Operations (Palmetto800@admin.sc.gov or call 803-734-2666)
Law Enforcement Common Talkgroups	Coordinate with the South Carolina Highway Patrol (David McClun: RadioOps@scdps.org or call 803-968-4617)
ITAC and SCTAC Conventional Repeaters	Local County Dispatch Center

Primary Palmetto 800 System Users Interconnect Guidelines

Purpose

To maintain the availability and functionality of the Palmetto 800 System for the primary system users.

Objectives

- Ensure the integrity of the Palmetto 800 System.
- Provide interoperability options.
- Manage system loading.
- Establish guidelines for the use of interconnects.

Benefits

- Improve safety.
- Reduce interference and interconnect technical problems.
- Provide alternate 800MHz service for special events and emergencies.

Definitions

- **System Interconnect Device** - Any device utilized to connect the Palmetto 800 System to another radio system.
- **Primary Palmetto 800 User** - An agency that depends on the Palmetto 800 System for its primary radio services and more than 75% of the agency's radios are 800 MHz radios or agencies transitioning to the Palmetto 800 system.
- **Non-Primary Palmetto 800 User** - An agency that depends on a radio system other than the Palmetto 800 System as its primary radio system and less than 75% of the agency's radios are on the Palmetto 800 System.

These guidelines are established to protect the integrity and control of the Palmetto 800 System during critical incidents and major emergencies. The Palmetto 800 System is available to all state, local government, fire, EMS, law enforcement, utilities and federal agencies. The system provides primary radio communication service to numerous public safety responders and power utilities.

The users of the Palmetto 800 System recognize the need for interoperability with agencies that have opted not to participate in the shared 800 MHz system. The need for interoperability however cannot be at the expense of South Carolina's largest and most widely used radio system. Numerous public safety agencies and utilities depend on the Palmetto 800 System for their primary communications needs.

Typically, interoperability situations occur during major emergencies and disasters when radio systems are being utilized at peak capacity. Misuse of an interconnect device during this time can adversely affect a radio system. The interconnecting of radio systems during emergency situations raises several critical concerns, including;

1. Loss of system control.
2. Overloading of system capacities.
3. Overcrowding of voice capacities (too many radios on a channel).
4. Radio interference.
5. Technical problems (Ping-Pong effect, loss of system features).
6. Who needs to talk versus who wants to talk?

Conventional 800 MHz Repeaters

The Palmetto 800 System supports a network of 800 MHz conventional repeaters across South Carolina. This conventional repeater system shall be the first choice for non-Palmetto 800 System users to interconnect to 800 MHz radio users. The guidelines listed below also apply to the use of these conventional repeaters.

Trunking Systems

Due to technical limitations and issues, under no circumstances will another trunked system be patched, bridged, or in any other way connected to the Palmetto 800 System. Any resources approved to be connected to Palmetto 800 must be conventional.

Planned Event System Interconnects

Planned events are those events where advance approval is given to allow a non-Palmetto 800 System user to interconnect into the Palmetto 800 System for a specific event or situation. These interconnects shall be of a temporary nature only and occur only when advance notification was made available to plan and test the interconnection before the event.

1. Motorola and the Palmetto 800 Advisory Committee must be notified at least 15 days before the event. Motorola and/or the Advisory Committee may approve or disapprove the interconnect request. The Advisory Committee or Motorola must provide written approval.
2. Motorola or a designated primary Palmetto 800 System user will be required to be on hand to monitor the radio traffic and loading.
3. The interconnect shall be made to a low priority talkgroup.
4. The talkgroup shall be configured to provide coverage for the event only (statewide talkgroups shall not be used).
5. The ID of the Palmetto 800 radio utilized for the system interconnect shall be provided to Motorola.

6. Motorola or the Palmetto 800 System representative is authorized to inhibit the radio or disconnect the interconnect radio if the integrity or the loading of the Palmetto 800 System is adversely affected.
7. Non-primary users must have a written agreement/approval for the talkgroup to be used for the interconnect, with the primary user of the Palmetto 800 System. This agreement must be provided to the Palmetto 800 Advisory Committee.
8. All interconnected systems shall be advised to utilize clear voice transmissions (no codes or signals).

Planned Agency Interconnects for Transitioning to The Palmetto 800 System

Planned interconnects for agencies that are transitioning to the Palmetto 800 System as a primary Palmetto 800 user will be approved jointly by Motorola and the Palmetto 800 Advisory Committee. These interconnects shall be of a temporary nature with specific beginning and ending dates. Agencies may request extensions based on individual circumstances.

1. Motorola and the Advisory Committee must be notified at least 10 days before the event. Motorola and/or the Advisory Committee may approve or disapprove the interconnect request based on impacts to the Palmetto 800 system. The Advisory Committee or Motorola must provide written approval to the requesting agency.
2. Motorola will review and approve the design of the RIC.
3. The talkgroup shall be configured to provide coverage for the agencies operational area only (statewide talkgroups shall not be used).
4. The ID of the Palmetto 800 radio utilized for the system interconnect shall be provided to Motorola.
5. Motorola, after notifying the agency, may inhibit the radio or disconnect the interconnect radio if the integrity or the loading of the Palmetto 800 System is adversely affected.

Unplanned Event System Interconnects

Unplanned events are those events or emergencies where advance approval was not given to interconnect a non-Palmetto 800 System into the Palmetto 800 System. These interconnects shall be provided on a case by case review. No authority is given to any agency to interconnect a non-Palmetto 800 system into the Palmetto 800 System without approval.

Agencies that plan to use interconnect devices to connect to the Palmetto 800 System must provide advance written notification to Motorola and the Advisory Committee. Written approval must be received before the use of any interconnect device on the Palmetto 800 System. The letter shall include the ID of the Palmetto 800 radios and talkgroups that will be utilized for the interconnect device and under what conditions the agency anticipates the use of the interconnect device. The Advisory Committee and Motorola will review the request and provide written response for acceptance or denial of the request.

1. Motorola will be notified before the interconnect device being activated. Based on system loading at the time of the request Motorola may approve or disapprove the interconnect request.
2. Motorola or a designated primary Palmetto 800 System user will be on hand to monitor the radio traffic and loading.
3. The interconnect shall connect to the lowest priority talkgroup possible.
4. The talkgroup shall be configured to provide coverage for the event only (statewide talkgroups shall not be used).
5. The ID of the Palmetto 800 radio utilized for the interconnect shall be provided to Motorola.
6. Motorola or the Palmetto 800 representative are authorized to inhibit the radio or disconnect the interconnect device without notice if the integrity or the loading of the Palmetto 800 System is adversely affected.
7. Non-primary users must have a written agreement/approval for the talkgroup to be used for the interconnect with the primary user of the Palmetto 800 System. A Copy of this agreement must be provided to the Palmetto 800 Advisory Committee.
8. All interconnected systems shall be advised to utilize clear voice transmissions.
9. Failure to follow these guidelines will be considered a theft of service and may violate Federal Communications Commission rules and regulations.

Violations of these guidelines will be reported to the Advisory Committee for review and action. Failure to comply with these guidelines may result in the ID's of interconnect radios being permanently inhibited and/or access to the Palmetto System being restricted or denied.

Non-Primary Palmetto 800 System Users Interconnect Guidelines

Purpose

To maintain the availability and functionality of the Palmetto 800 System for the non-primary system users.

Objectives

- Ensure the integrity of the Palmetto 800 System.
- Provide interoperability options.
- Manage system loading.
- Establish a guideline for the use of interconnects.

Benefits

- Improve safety.
- Reduce interference and interconnect technical problems.
- Provides alternate 800MHz service for special events and emergencies.

Definitions

- **System Interconnect Device** - Any device utilized to connect the Palmetto 800 System to another radio system.
- **Primary Palmetto 800 User** - An agency that depends on the Palmetto 800 system for its primary radio services and more than 75% of the agencies radios are 800 MHz radios.
- **Non-Primary Palmetto 800 User** - An agency that depends on a radio system other than the Palmetto 800 system as its primary radio system and less than 75% of the agencies radios on the Palmetto 800 System.

These guidelines are established to protect the integrity and control of the Palmetto 800 Public Safety Radio System during critical incidents and major emergencies. The Palmetto 800 system is available to all state, local government, fire, EMS, law enforcement, utilities and federal agencies. The system provides primary radio communication service to numerous public safety responders and utilities.

The system users of the Palmetto 800 System recognize the need for interoperability with agencies that have opted not to participate in the shared 800 MHz system. However, the need for interoperability with Non-Primary Users cannot impede South Carolina's largest and most widely used radio system. Numerous public safety agencies and utilities depend on the Palmetto 800 System for their primary communications needs.

Typically, interoperability issues arise during major emergencies and disasters when radio systems are being utilized at peak capacity. Misuse of an interconnect device during this time can adversely affect a radio system. The interconnecting of radio systems during emergency situations raises several critical concerns:

1. Loss of system control.
2. Overloading of system capacities.
3. Overcrowding of voice capacities (too many radios on a channel).
4. Radio interference.
5. Technical problems (Ping-Pong effect, loss of system features).
6. Who needs to talk versus who wants to talk?

Conventional 800 MHz Repeaters

The Palmetto 800 System supports a network of 800 MHz conventional repeaters across South Carolina. This conventional repeater system shall be the first choice for non-Palmetto 800 System users to interconnect to 800 MHz radio users. The guidelines listed below also apply to the use of these conventional repeaters.

Planned Event System Interconnects

1. Planned events are those events where advance approval is given to allow a non-Palmetto 800 radio system user to interconnect into the Palmetto 800 system for a specific upcoming event or situation. These interconnects shall be of a temporary nature only and when advance notification was available to plan and test the interconnection before the event.

2. Motorola and the Advisory Committee must be notified at least 15 days before the event. Motorola and/or the Advisory Committee may approve or disapprove the interconnect request. The Advisory Committee or Motorola must provide written approval.
3. Motorola or a designated primary Palmetto 800 System user will be required to be on hand to monitor the radio traffic and loading.
4. The interconnect shall be made to a low priority talkgroup.
5. The talkgroup shall be configured to provide coverage for the event only (statewide talkgroups shall not be used).
6. The ID of the Palmetto 800 radio utilized for the system interconnect shall be provided to Motorola.
7. Motorola or the Palmetto 800 representative is authorized to inhibit the radio or disconnect the interconnect radio if the integrity or the loading of the Palmetto 800 System is adversely affected.
8. All interconnected systems shall be advised to utilize clear voice transmissions (no codes or signals).

Unplanned Event System Interconnects

Unplanned events are those events or emergencies where advance approval was not given to interconnect a non-Palmetto 800 System into the Palmetto 800 System. These interconnects shall be provided on a case by case review. No authority is given to any agency to interconnect a non-Palmetto 800 system into the Palmetto 800 System without approval.

Agencies that plan to use interconnect devices to connect to the Palmetto 800 System must provide advance written notification to Motorola and the Advisory Committee. Written approval must be received before the use of any interconnect device on the Palmetto 800 System. The letter shall include the ID of the Palmetto 800 radio/radios and talkgroups that will be utilized for the interconnect device and under what conditions the agency anticipates the use of the interconnect device. The Advisory Committee and Motorola will review the request and provide written response for acceptance or denial of the request.

1. Motorola will be notified before the interconnect device being activated. Based on system loading at the time of the request Motorola may approve or disapprove the interconnect request.
2. Motorola or a designated primary Palmetto 800 System user will be on hand to monitor the radio traffic and loading.
3. The interconnect shall connect to the lowest priority talkgroup possible.
4. The talkgroup shall be configured to provide coverage for the event only (statewide talkgroups shall not be used).
5. The ID of the Palmetto 800 radio utilized for the interconnect shall be provided to Motorola.
6. Motorola or the Palmetto 800 representative are authorized to inhibit the radio or disconnect the interconnect device without notice if the integrity or the loading of the Palmetto 800 System is adversely affected.
7. All interconnected systems shall be advised to utilize clear voice transmissions.

8. Failure to follow these guidelines will be considered a theft of service and may violate Federal Communications Commission rules and regulations.

Violations of these guidelines will be reported to the Advisory Committee for review and action. Failure to comply with these guidelines may result in the ID's of interconnect radios being permanently inhibited and/or access to the Palmetto System being restricted or denied.

Palmetto Tactical Communications Network:

In addition to the Palmetto 800 Shared Trunked Network, South Carolina has implemented a statewide conventional 800 MHz network known as the Palmetto Tactical Communications Network (PATCON). PATCON is a state and local government owned network that utilizes state and national interoperability frequencies interlaced across South Carolina.

PATCON provides a statewide cost-effective interoperability solution for non-trunked radio users, network redundancy, and additional network capacity during events or emergencies.

To view the PATCON 800 MHz Conventional Coverage map, please [click here](#).

Conventional Mutual Aid 800 MHz Repeater Plan

Purpose

To provide a plan for the implementation of shared public safety Mutual Aid Conventional 800MHz radio repeaters in South Carolina.

Objectives

- Maximize the use of existing facilities.
- Maximize the use of available frequencies.
- Minimize frequency interference.
- Provide for the sharing of equipment and sites.

Benefits

- Provides for improved inter-agency communications.
- Provides backup for 800MHz trunked radio systems.
- Provides alternate 800MHz service for special events and emergencies.

All eligible local, state and federal public safety authorities shall have access to the shared public safety conventional 800MHz radio repeaters. Public safety authorities are defined as entities licensed in the Public Safety Radio Services and the Special Emergency Radio Service and their federal counterparts.

Operation of fixed stations (base, mobile relay, RF control) on the Mutual Aid Channels requires coordination with the 800 MHz Advisory Committee, South Carolina Region 37 Committee approval and Federal Communications Commission licensing.

Use of the Mutual Aid Channels in mobile and portable radios does not require explicit South Carolina Region 37 Committee approval or Federal Communications Commission licensing, but all usage must be in accordance with Federal Communications Commission rules, the South Carolina Regional Plan and all state and local agreements for use of the channels.

There should be enough state-provided and licensed shared public safety conventional 800MHz radio repeaters installed to provide statewide mobile coverage.

Where feasible and in coordination with existing 800 MHz systems, the State licensed shared public safety Mutual Aid Conventional 800MHz radio repeaters should utilize one of the five South Carolina Tactical 800MHz frequencies or National Public Safety Tactical frequencies.

In major population areas, coastal counties and those counties where both the state and local government utilizes 800MHz, additional repeaters should be installed to provide multichannel repeater service. One of these repeaters should be on the 8CALL90 frequency of 806.0125. This channel should be monitored by a public safety dispatch center.

There must be at least one local government provided and licensed shared public safety conventional 800MHz radio repeater in each county of the state where 800MHz is the primary communications system for that local government. Where possible, county wide mobile coverage should be provided. Where multiple repeaters are installed in a county, one should be on the 8CALL90 frequency. This channel should be continuously monitored by a public safety dispatch center.

The local government licensed shared public safety Mutual Aid Conventional 800MHz radio repeaters must utilize either one of the five National Public Safety Tactical 800MHz frequencies or one of the South Carolina Tactical frequencies.

Frequencies shall be assigned to prevent or reduce co-channel interference.

Where possible, the state and local government repeaters should not be co-located.

The shared public safety Mutual Aid Conventional 800MHz radio repeaters shall have an output power of at least 100 watts.

All shared public safety conventional 800 MHz radio repeaters shall use a CCTSS tone of 156.7 Hz for decode and encode. A second tone may be utilized for local communications. The second tone should be coordinated with the state frequency coordinator.

The Calling Channel shall not use any means of encryption or other selective signaling techniques.

Where possible, the shared public safety conventional 800 MHz radio repeaters should be operated from a DC power system equipped with a backup system and/or emergency generator backup for power failures.

Where the state or local government has available antenna space, antenna systems, building space or power, this may be made available to the other through a shared use agreement.

Where the state or local government has available 800 MHz conventional radio repeaters that use channels other than the Mutual Aid Channels listed, they may be made available through a shared use agreement.

The licensee of a public safety conventional 800 MHz Non-Mutual Aid Channel radio repeater is responsible for monitoring and controlling the use of that repeater.

The conventional Mutual Aid repeaters shall not be used for routine daily operations or as ongoing working channels by any agency. These channels shall be reserved for inter-agency communications, and during incidents requiring multiagency participation and emergencies. These shall not be used for administrative or intra-agency communications unless so directed during a major emergency or disaster situation.

Examples of Proper Use of Mutual Aid Channels:

- As working channels for multiple fire departments fighting a fire together.
- For coordination during a police chase through multiple jurisdictions where the agencies have no other communications link with each other.
- For communications during extended joint operations between multiple police agencies such as drug operations, riots, etc.
- For coordination during recovery operations after a disaster such as a hurricane or earthquake when local, state, and federal offices require a common communication link.

Examples of Improper Use of Mutual Aid Channels:

- To support the administrative functions of a fire department which has a mutual aid agreement with an adjacent fire department to provide “move up” capability when a fire unit leaves its own coverage area.
- To provide an extra working channel for a public safety agency supporting a special event.
- To provide a surveillance channel for use between members of the same public safety agency.

A public safety dispatch center or communications agency in the geographic coverage area of each system (normally the county sheriff’s office or county communications center) is designated by the South Carolina Region 37 Committee and the 800 MHz Advisory Committee to:

- Have direct control of the Mutual Aid Channels mobile relay station(s).
- Provide 24/7 monitoring of the Mutual Aid Channel(s).
- Assign the use of Mutual Aid TAC channels upon request on a per incident basis.
- Coordinate the most effective and efficient assignment and use of Mutual Aid Channel(s). During emergency or disaster situations, the state of South Carolina may assume control over one or more Mutual Aid Channels.

All scheduled special event use of a shared 800MHz conventional repeater is limited to the 8SCTAC frequencies ONLY. Special event use should be coordinated with the agency providing direct control of the Mutual Aid channel. Use of the channel shall not interfere with emergency or disaster situations. If an emergency or disaster situation develops the agency providing direct control of the of the Mutual Aid channel(s) under its authority may terminate the Special Event Use of the Mutual Aid channel.

During a period of high traffic, communications on a shared 800MHz conventional repeater should be essential and brief.

Inter-agency communications should utilize the agency name and radio call sign.

Fixed Base, Mobile Relay and RF Control Stations must be Federal Communications Commission type-accepted for use in the 806-809/851-854 MHz band and must additionally have at least 20 dB selectivity at 12.5 kHz offset. Mobile and portable radios operating on these channels are not required to meet these requirements.

All mobile and portable equipment operating in the 806-808 MHz band shall be equipped to operate on all 10 of the Mutual Aid Channels.

Plain ENGLISH will be used at all times on all Mutual Aid Channels. The use of unfamiliar terms, codes or signals is not allowed.

The use of RIC switches or console cross-patching is not allowed on any of the Mutual Aid Channels.

Telephone interconnect (i.e., telephone patching) is prohibited on any of the Mutual Aid Channels.

South Carolina and National Public Safety Tactical Mutual Aid Channels

South Carolina Tactical Frequencies (8SCTAC) are uniformly referred to as shown below.

Conventional Mutual Aid Channels

South Carolina Mutual Aid Channels (BASE-MOBILE)

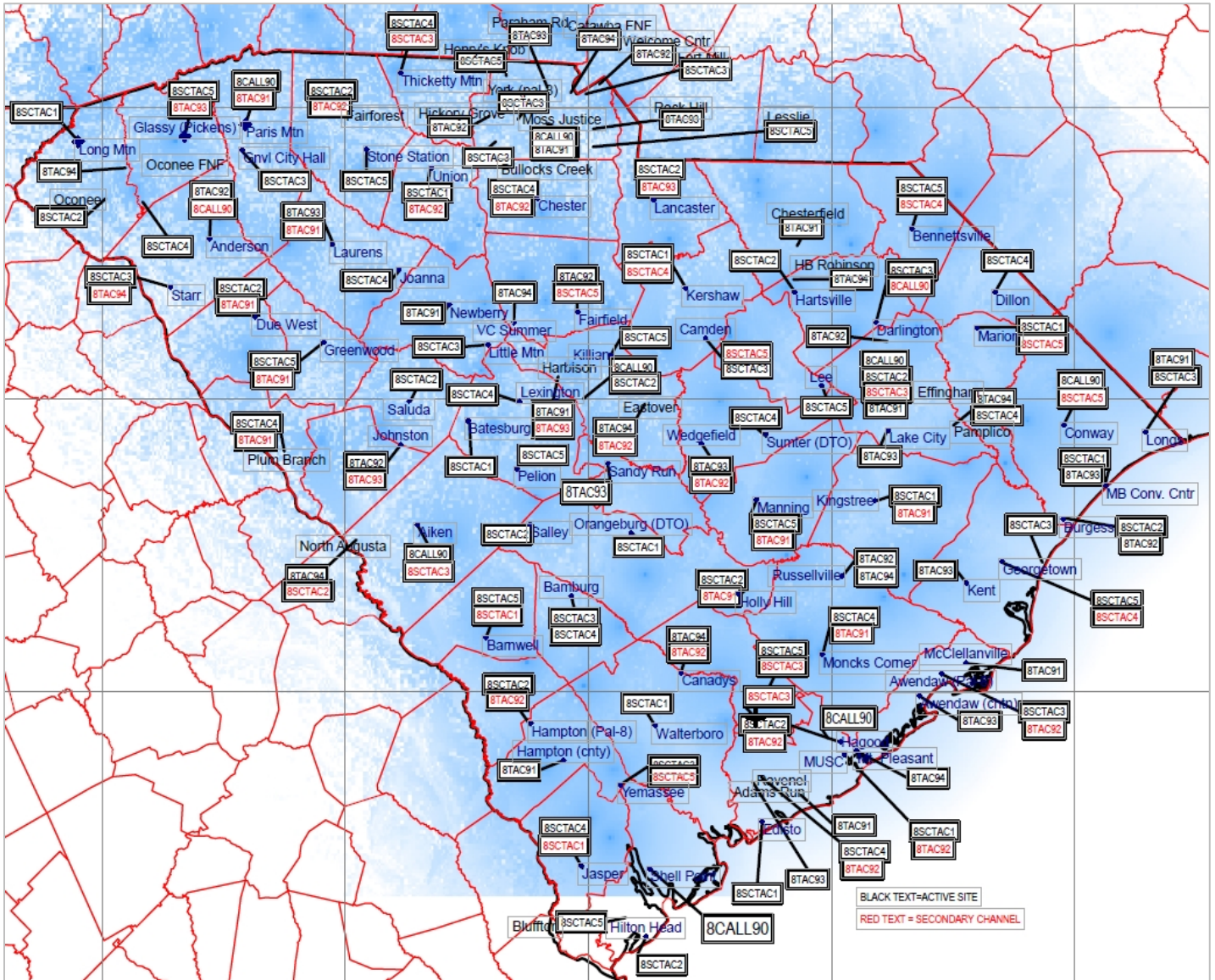
NAME	TRANSMIT	RECEIVE	PL TONE
8SCTAC1	806.2250	851.2250	156.7HZ
8SCTAC2	806.6875	851.6875	156.7HZ
8SCTAC3	807.7750	852.7750	156.7HZ
8SCTAC4	808.6375	853.6375	156.7HZ
8SCTAC5	808.9750	853.9750	156.7HZ

National Public Safety Frequencies are uniformly referred to as shown below.

National Mutual Aid Channels (BASE-MOBILE)

NAME	TRANSMIT	RECEIVE	PL TONE
8CALL90	806.0125	851.0125	156.7HZ
8TAC91	806.5125	851.5125	156.7HZ
8TAC92	807.0125	852.0125	156.7HZ
8TAC93	807.5125	852.5125	156.7HZ
8TAC94	808.0125	853.0125	156.7HZ

PATCON 800 MHz Conventional Coverage



Contracts and Fees Information

Palmetto 800 MHz System User Fees

Vendor Information – Motorola Solutions, Inc.,

Motorola Solutions, Inc.,

1460 Monroe Hwy

Lancaster, SC 29720

Vendor Number: 7000007297

Contract Number: 4400013556

Contract Period: July 1, 2016 – June 30, 2023

Motorola State Contract Note

The state contract for the Palmetto 800 MHz system is with Motorola Solutions, Incorporated. All purchase orders must be issued to Motorola Solutions, Inc., to be considered a state contract purchase. Purchase orders issued to Motorola franchise shops (MSS) are not considered purchases under state of South Carolina contract #4400013556.

For Motorola service questions, please contact one of the individuals below.

MOTOROLA CONTACT	TELEPHONE	EMAIL
Wayne Lynch	Mobile: 803-730-9092	wayne.lynch@motorolasolutions.com
Kaitlyn Hunter	Office: 803-847-0657	Kaitlyn.Hunter@motorolasolutions.com

For contract administration questions, please contact:

CONTACT	TELEPHONE	EMAIL
Michael Thomas	Office: 803-896-0752	Michael.Thomas@admin.sc.gov

Mobile Radio (two-Way) Services Contracts

The Division of Technology Operations (DTO) state term contracts for mobile radio (two-way) equipment and services are shown in the table below. Interested parties should contact these vendors for information about the services and associated rates.

VENDOR	CONTRACT	EFFECTIVE DATE	CONTACT	PHONE	EMAIL
Motorola	4400021163	Through 5.31.23	Wayne Lynch	803-730-9092	wayne.lynch@motorolasolutions.com
Harris	4400021622	Through 10.4.23	Lori Rodriquez	434-455-9240 434-258-1156	Lori.Rodriquez@Harris.com

For contract administration questions, please contact:

CONTACT	TELEPHONE	EMAIL
Michael Thomas	Office: 803-896-0752	Michael.Thomas@admin.sc.gov

Pager Services

The South Carolina Department of Administration (Admin) has contracted with SPOK (formally USA Mobility) to provide efficient, cost-effective pager services. Such services include digital and alphanumeric pagers. State agencies interested in using the service should contact the vendor directly for plan and rate information. Service or billing questions should also be directed to SPOK. Admin manages the contract and assists agencies with contract-related issues.

VENDOR	CONTRACT	EFFECTIVE DATE	CONTACT	PHONE	EMAIL
SPOK	4400018209	Through 6.30.20	Michelle Wolfe	512-243-6147	Michelle.Wolfe@spok.com

For contract administration questions, please contact:

CONTACT	TELEPHONE	EMAIL
Michael Thomas	Office: 803-896-0752	Michael.Thomas@admin.sc.gov

Satellite Telephone Services

The Division of Technology Operations (DTO) has contracted with Mackay Communications to provide select satellite products and services. Currently available solutions include satellite voice telephones, satellite push-to-talk services, and portable satellite Voice over IP telephone and data services. State agencies interested in using the service should contact the vendor directly for service and equipment pricing.

VENDOR	CONTRACT	EFFECTIVE DATE	CONTACT	PHONE	EMAIL
Mackay	4400016168	Through 6.30.20	Rob Landiser	919-850-3038 919-632-1876	Robert.Landiser@mackaycomm.com

For contract administration questions, please contact:

CONTACT	TELEPHONE	EMAIL
Michael Thomas	Office: 803-896-0752	Michael.Thomas@admin.sc.gov