
# Contract Vehicle Survey White Paper

## August 2015

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# Contract Vehicle Survey

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# Executive Summary

The Contract Vehicle Survey was modeled after a Federal survey created specifically for the National Public Safety Broadband Network initiative. The FloridaNet team utilized this as a starting point to ensure critical data were being provided to FirstNet. The Federal survey, in its native form, was quite lengthy. Therefore, the FloridaNet survey was shortened to 18 of the most pertinent questions. This approach was utilized in order to encourage participation and reduce respondent fatigue.

FloridaNet derived a contact list through various methods and external aid. The survey was formally open for one month, with Region 5 acting as a testing beta. Six hundred sixty six of the thousands of public safety entities identified received a direct invitation to participate in the survey. This sampling error resulted from the lack of a comprehensive contact list, but did not appear to skew further interpretations of the data. The final compiled data suggest that a relatively representative sample of the State's target population did fully complete the survey.

The survey was completed by 250 public safety professionals from 53 counties across the State of Florida. These respondents were from both traditional first responder professionals (Law Enforcement, Fire, and EMS), and non-traditional responders such as public utilities, health, and transportation services. Additionally, a wide range of jurisdictional levels were represented, ranging from Federal to Special Districts, with County and Local having the highest proportion of responses (37% and 45%, respectively).

The professionals were queried on three main topics: demographics, carrier information, and devices. The demographics topic provided insight regarding a respondent organization's workforce, data equipped vehicles, and data usage monitoring tools. The size of the workforce indicated that the sample was representative of the State, as small, moderate, and large organizations were represented in a manner consistent with the overall ratio found within the State (36% small, 30%, moderate, 15% large, and 19% very large). Additionally, the ratios of data equipped vehicles were commensurate with the numbers of full time employees, which may indicate validity.

The demographics topic also contained one of the most important questions for future data collection requirements: the usage of a data monitoring tool. A majority of organizations (56%) indicated that their organization does collect data usage. It is a goal of FloridaNet that these databases will be shared in the hopes of obtaining data such as application throughput requirements and response latitude/longitude locations. This

information will be then used to create a GIS map to show FirstNet what Florida's public safety users need and expect from the National Public Safety Broadband Network.

In addition to the demographics of respondents, the survey looked at current commercial offerings. The majority of respondents (86%) utilized Verizon's network and procured their carrier through the State's Master Contract (35%). The most important factors in choosing a network were coverage areas (73%) and redundancy (53%). All of these results highlight the need for a flexible procurement method and abundant coverage areas in the new dedicated network.

FirstNet has indicated that access to the network will cost about the same as current commercial offerings in order to obtain a high rate of public safety adoption. Rates may vary according to the type of device and the amount of data typically used by each type. The vast number of respondents maintain smart phones equipped with data and air cards, which are mobile modems that plug into devices. According to the results, a majority (80%) of potential users pay less than $50 per mobile device per month. Additionally, unlimited data plans are by far the most common form of plan (83%), regardless of the type of device.

Overall, the results from the Florida Contract Vehicle Survey are representative of the State of Florida and provide necessary insight on the potential users of this enormous initiative. Regardless of the demographic makeup of the Region, Verizon's network was the most utilized (86%) throughout the State. Additionally, a majority of respondents (83%) representing all seven regions procured an unlimited data plan. All regions, except Region 7, procured commercial data carriers through the State's Master Contract. Region 7, which has the highest population density, conducted an equal amount of Local Requests for Proposals (RFPs) as utilizations of the State's Master Contract. The more rural, and less densely populated regions monitor data usages less frequently than the urban and suburban regions.

Through the upcoming education and outreach campaigns, the FloridaNet team is determined to increase participation and awareness of all public safety disciplines. A holistic and expansive representation from across the State will ensure those that protect the lives and property of Florida residents and visitors obtain a dedicated and hardened mission critical data communications network where they need it and when they need it.

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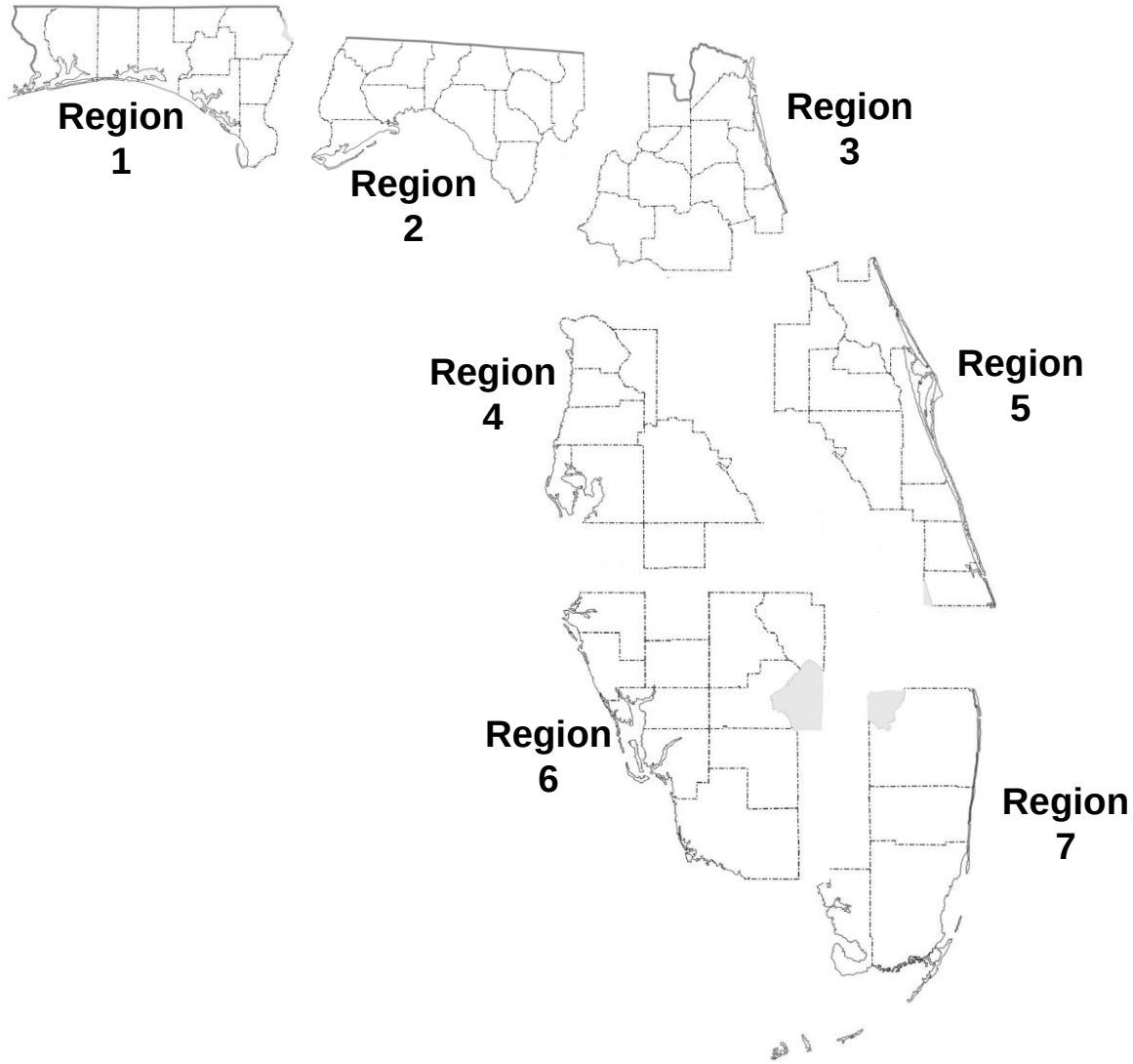
# Introduction




The Contract Vehicle Survey is a preliminary effort to gain insight on the mobile data broadband needs of Florida's Public Safety community. Specifically, this survey was aimed at understanding the potential users of the National Public Safety Broadband Network (NPSBN) as governed by the First Responder Network Authority (FirstNet). Additionally, the potential users of the NPSBN were questioned on three main topics: demographics, carrier information, and devices.

The Department of Homeland Security's (DHS) Office of Emergency Communications (OEC) Mobile Data Survey Tool (MDST) was the source of inspiration for the FloridaNet survey. This source was chosen because it is a nationwide survey that was developed

specifically for the FirstNet initiative. The MDST is very lengthy and detailed, however, which is why the FloridaNet team decided to pare down the number of questions to the 18 most pertinent. Additionally, the length of the survey was shortened in order to mitigate fatigue and encourage respondent completion.

One of the largest challenges of this survey was obtaining a list of those practitioners who would know their organization's details as they relate to mobile broadband data needs. The primary contact list used was from the DHS OEC mapping and database tool called CASM NextGen. This list, however, was not completely current, nor comprehensive. To update the list and ensure that a representative sample of public safety disciplines was developed, the Florida Department of Law Enforcement (FDLE) Regional Domestic Security Task Forces (RDSTFs) were utilized.

The RDSTFs split the State into seven regions, with two primary chairpersons for each region. The co-chairs facilitated contact with the diverse first responder disciplines throughout their respective regions and sent the FloridaNet team updated contact lists. These lists were then consolidated and verified.

Region 5 was the beta test region for the survey. The first round of survey invitations were sent on January 9, 2015. The remaining six regions received invitations on June 4, 2015. Surveys were to be completed by July 4, 2015. This was not a hard-stop, however, and the survey was open until September 15, 2015 for any public safety entity that wanted to have their voice heard. The results contained within were from August 1, 2015 or earlier.

The survey was sent to 666 practitioners across the State. Of these practitioners, 250 fully completed the survey. This represents a completion rate of 38%. It is important to note that there are thousands of public safety entities across the State. Without a complete contact list, it was impossible to reach all of these organizations. Those agencies that did receive and complete the survey represent a wide array of disciplines and demographics.

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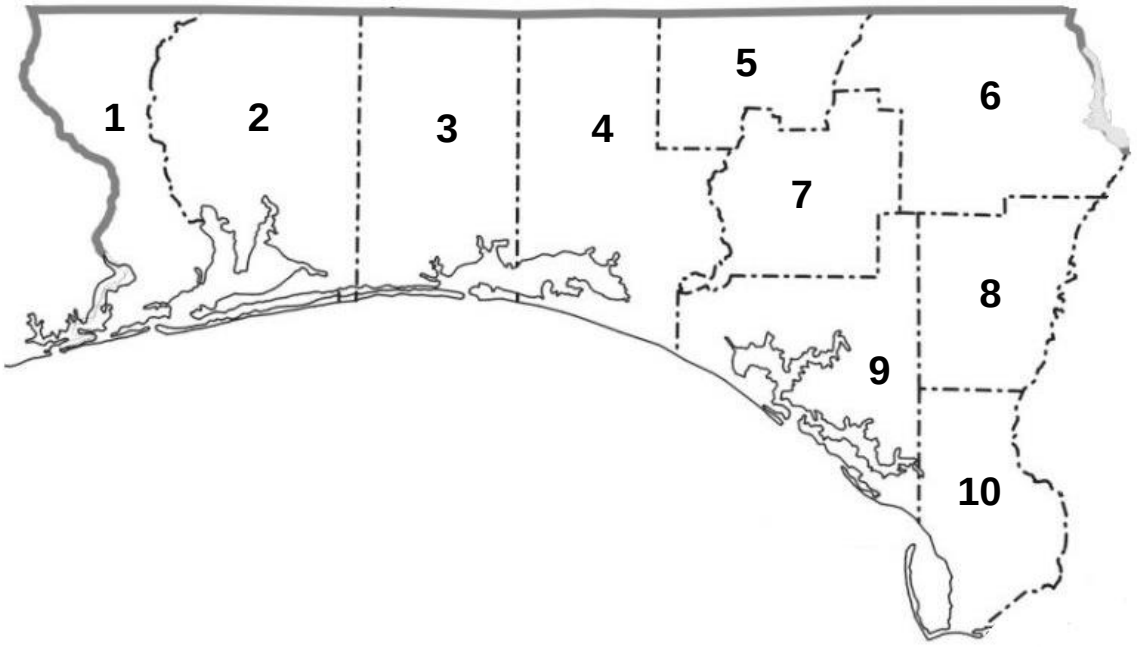
# Region 1




| | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* | | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* |
|---|---|---|---|---|---|---|---|---|---|
| ***1*** | Escambia | 305,817 | 656 | 453 | ***6*** | Jackson | 49,746 | 918 | 54 |
| ***2*** | Santa Rosa | 161,096 | 1,012 | 150 | ***7*** | Washington | 24,935 | 583 | 43 |
| ***3*** | Okaloosa | 180,822 | 930 | 502 | ***8*** | Calhoun | 14,625 | 567 | 26 |
| ***4*** | Walton | 55,043 | 1,038 | 53 | ***9*** | Bay | 168,852 | 758 | 223 |
| ***5*** | Holmes | 19,927 | 479 | 42 | ***10*** | Gulf | 15,863 | 564 | 28 |

Region 1 consists of 10 counties in the Northwest corner of the Florida Panhandle. This geographic breakdown is commensurate with the Florida Department of Law Enforcement's (FDLE) Regional Domestic Security Task Force (RDSTF) regions. The RDSTF geographic structure was chosen due to its familiarity and leadership among the public safety profession throughout the State.

Of the 10 counties in Region 1, six share a border with a neighboring State, and six have significant coastlines along the Gulf of Mexico. The most populous county in Region 1 is Escambia (305,817), while Okaloosa houses the highest population density (502/sq mi). Escambia County also houses the most populous city: Pensacola with a population density of 2,304/sq mi. Calhoun County is both the least populous (14,625) and the least

densely populated (26/sq mi). This region can be characterized as mainly rural, with three major metropolitan statistical areas with populations over 150,000. There are also five major military instillations along the Gulf Coast. Over 300 individual public safety organizations and agencies exist across Region 1.

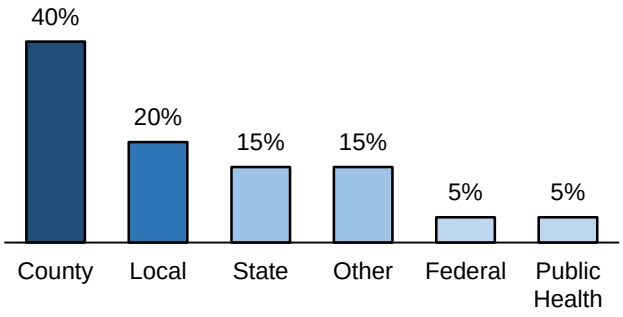
The Department of Homeland Security's Office of Emergency Communication's CASM NextGen mapping and database tool was utilized to obtain a list of public safety agencies. This list was then divided into the seven different RDSTF regions. Each region's list was used to ascertain the technical point of contact for each agency and then request that they complete the Contract Vehicle Survey for their agency. It is important to note that not all agencies at this time had provided a point of contact, which resulted in a smaller sample size.

## Demographics

To gain insight into Region 1, the Contract Vehicle Survey was sent to 45 identified public safety practitioners.

**Jurisdictional Level**

**(Figure 1.1)**

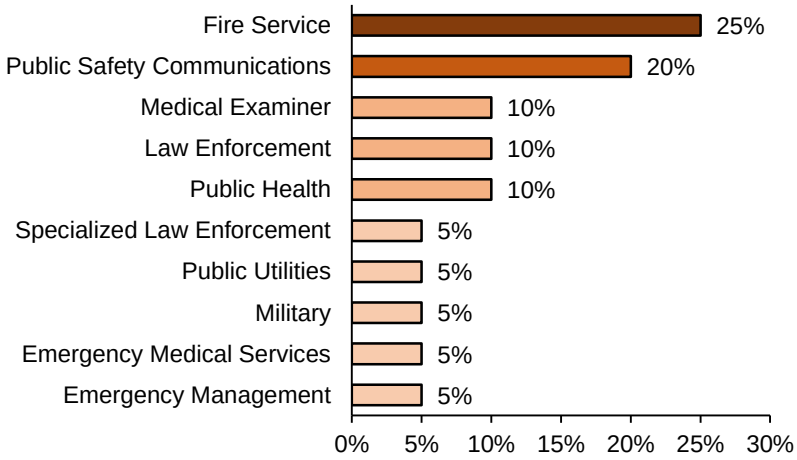



The Survey was completed by 20 respondents, which represents a 44% completion rate. Of these 20 respondents, eight (40%) were from County government, four from Local government (20%), three (15%) from State government, one (5%) from Federal government, and one (5%) from Public Health. The remaining three (15%) were categorized as "Other": one Non-profit, one Volunteer, and one Regional Medical Examiner. These results indicate participation at diverse levels of government.

Of the 20 respondents, seven (35%) were from Escambia, five (25%) were from Bay County, four (20%) were from Santa Rosa County, three (15%) were from Okaloosa County, and one (5%) was from Calhoun County. The remaining five counties (Walton, Holmes, Jackson, Washington, and Gulf) did not participate. This may represent a sampling error, as the nonparticipating counties represent a significant portion of the rural public safety organizations. Without their input, the data collected may be skewed towards the larger, more densely populated counties.

## Discipline

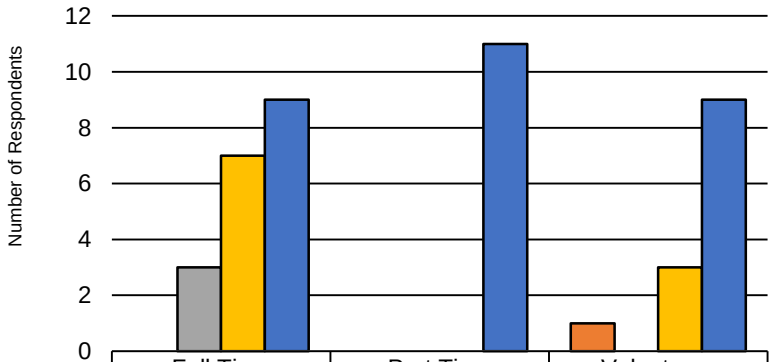
**(Figure 1.2)**




In addition to identifying their organization's jurisdictional level, respondents were also queried on the discipline that best described their agency or division. There were 10 disciplines represented. The most frequent, with five (25%), identified as Fire Services, followed by four (20%) identified as Public Safety Communications. The remaining eleven respondents (55%) were made up of two Medical Examiners (10%), three Law Enforcement (15%), two Public Health (10%), one Utilities (5%), one Military (5%), one Emergency Medical Services (5%), and one Emergency Management (5%). While there was a wide range of disciplines represented, the figures may be skewed by the larger representation of Fire Services and Public Safety Communications.

## Types of Employees

**(Figure 1.3)**



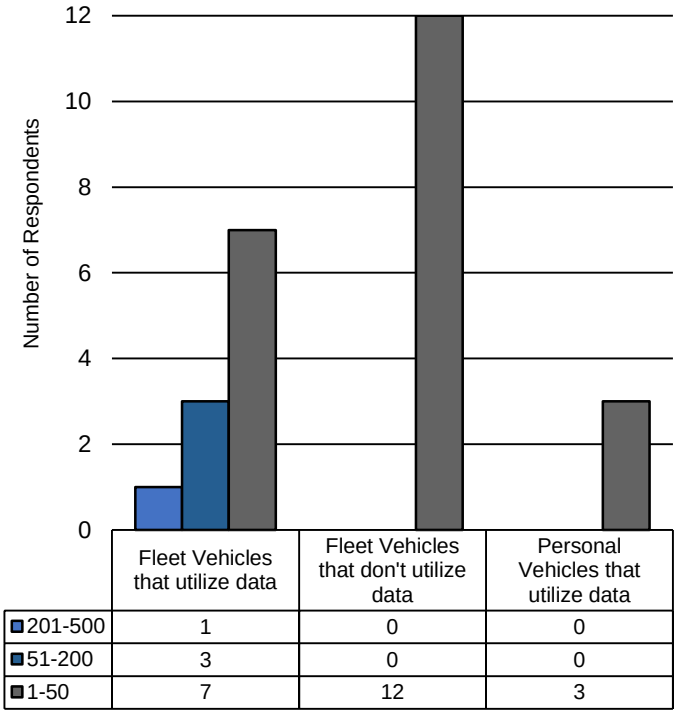

| | Full Time | Part Time | Volunteers |
|---|---|---|---|
| Greater than 500 | 0 | 0 | 1 |
| 201-500 | 3 | 0 | 0 |
| 51-200 | 7 | 0 | 3 |
| 0-50 | 9 | 11 | 9 |

Respondents were asked to identify the number of full time employees, part time employees, and volunteers. Nine of the 19 (45%) respondents to this question indicated their agency has 50 or less full time employees. Seven (37%) responded that their agency has between 51 and 200 full time employees, while three (16%) had a workforce consisting of 201 to 500 full time employees. Over half of respondent organizations (58%) employed part time personnel, all of which maintained less than 50. Almost two thirds (68%) of respondents utilized the help of volunteers. Of these respondents, nine (56%) maintained less than 50 volunteers, and three (19%)

maintain between 51 and 200. Only one respondent agency utilized more than 500 volunteers. This data shows that the Region 1 sample consisted of mainly smaller-sized agencies and organizations, which is consistent of the rural demographic of the Region.

## Vehicle Information

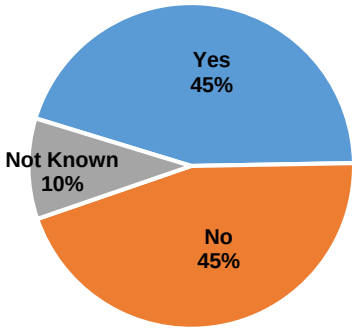
**(Figure 1.4)**




The Survey went on to query information regarding data utilization as it relates to fleet and personal vehicles. A slight majority, or 11 of 20, respondents (55%) indicated that their agency's fleet vehicles utilized data, with seven (64%) agencies operating 1 to 50 vehicles. Twelve of the respondents' agencies (60%) maintained 1 to 50 fleet vehicles that did not utilize data. Only three respondents (15%) identified that their agency utilized data in personal vehicles, all of which operated between 1 and 50 vehicles. These results validate the fact that most of Region 1 respondents are from smaller-sized agencies, as ten (50%) agencies operate less than 50 fleet vehicles equipped with mobile data.

## Do You Monitor Data?

**(Figure 1.5)**




Respondents were asked to identify if their organization utilized a data monitoring product. This question will be important for subsequent FloridaNet data collection efforts. Access to data monitoring files may aid in the establishment of a needed broadband baseline coverage map for the first responders and disaster recovery users operating in Region 1. The responses were split down the middle: nine did not use a monitoring product (45%) and nine did use one (45%). Two respondents did not know if their agency utilized a data monitoring product (10%). Five (56%) of those agencies that did monitor data were from the County level, and one respondent, each, from the State,

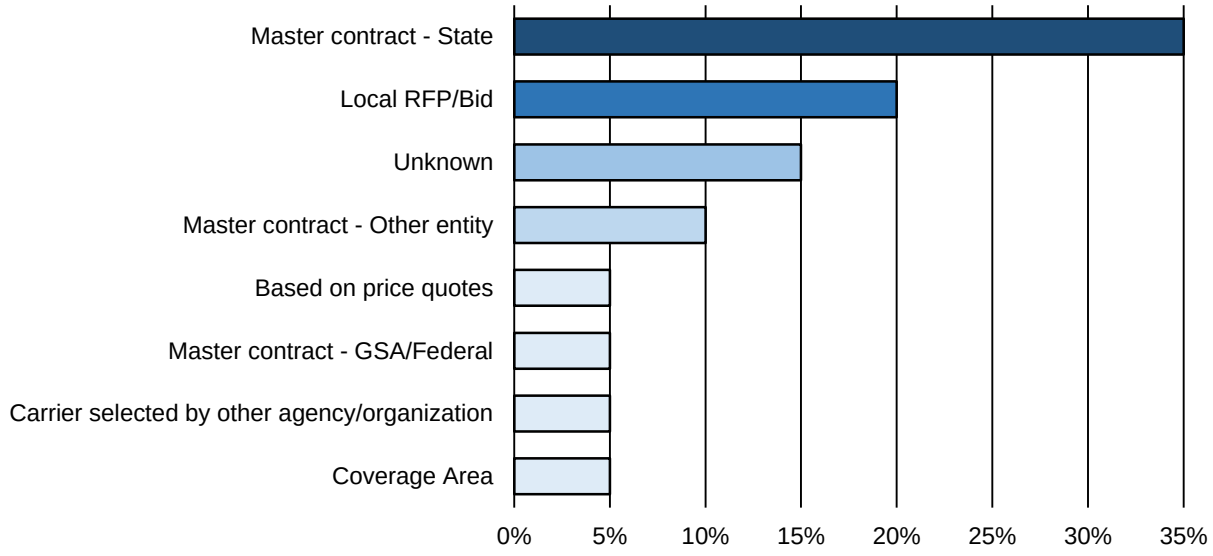
Federal, Local, and Other jurisdictional levels. This representation is proportional with the jurisdictional levels of the 20 respondents, which may aid in further extrapolation in subsequent data collection efforts. It is a goal of FloridaNet that those nine agencies that do utilize a data monitoring product share their data so that the local public safety users in Region 1 maintain a strong and vocal presence in the determination of coverage and capacity in the geographic area where they operate their public safety mission.

## Carrier Information

The Survey asked respondents to identify the procurement method of their current carrier(s). Ten respondents (50%) indicated that their agency used one of three master contacts: seven utilized the State (35%), two employed Other entity (10%), and one used the GSA/Federal (5%). Four respondents (20%) utilized a Local RFP/Bid process, while one organization (5%) employed price quotes. The remaining respondents either selected the carrier based upon coverage area (5%), carrier was selected by another agency (5%), or did not know their agency's procurement method (15%).

### Carrier Procurement Method

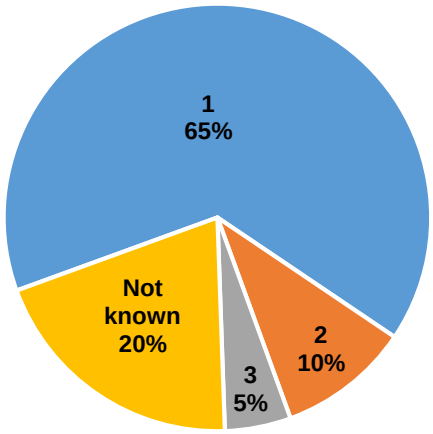
**(Figure 1.6)**




Of the seven agencies that utilized the Master State Contract, four (57%) were from the County level, with one respondent, each, from the State, Local, and Other jurisdictional categories. All four of the agencies that utilized the Local RFP process were from the County level. This means that 100% of the County respondents utilized either the Master State Contract (50%) or a Local RFP process (50%). A State Medical Examiner agency utilized the Coverage Area criterion to choose a provider.

## Number of Required Carriers

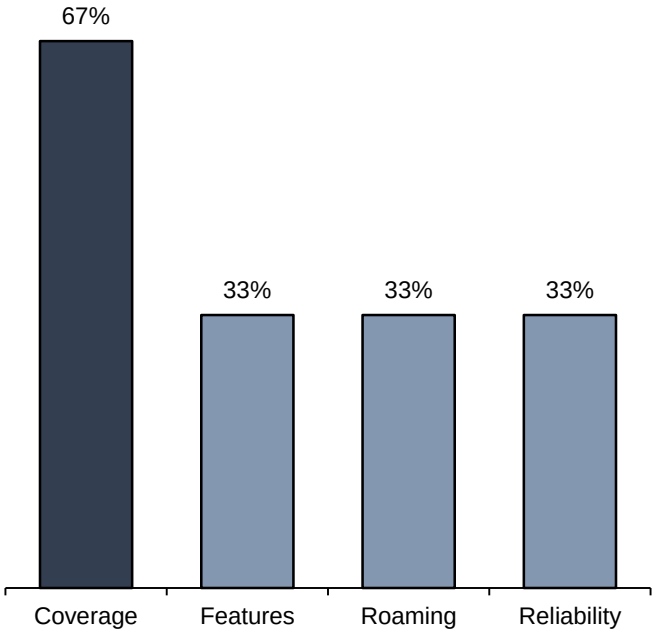
**(Figure 1.7)**




In conjunction with their agency's procurement method, respondents were asked how many carriers were needed to fulfill their public safety mission. Thirteen respondents (65%) answered that their agency required only one commercial provider. These 13 respondents represent all of the levels of jurisdictions and disciplines from the Region 1 sample. Two respondent agencies needed two carriers (10%), with a single organization needing three. The respondents that indicated a need for multiple carriers were from the County, Local, and Federal levels. The remaining four (20%) did not know how many carriers their agency or organization required to carryout their public safety mission and were from the County, Federal, Public Health, and Other jurisdictional levels.

## Why Do You Require Multiple Carriers?

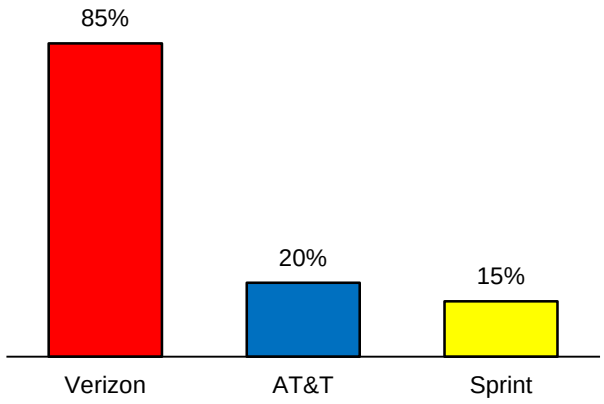
**(Figure 1.8)**




The Survey went on to query why those agencies that use more than one provider require multiple carriers. These three agencies were from the County (Public Safety Communication and Fire Service) and Local level (Fire Service). This important follow-up question should reveal the current commercial shortcomings that FirstNet must address for full public safety adoption. The County Fire Service and Medical Examiner cited Coverage as the driving factor for requiring multiple carriers, with the Fire Service also noting Reliability. The Local Fire Service indicated both Features and Roaming as reasons for utilizing multiple carriers.

## Commercial Carrier Provider

**(Figure 1.9)**

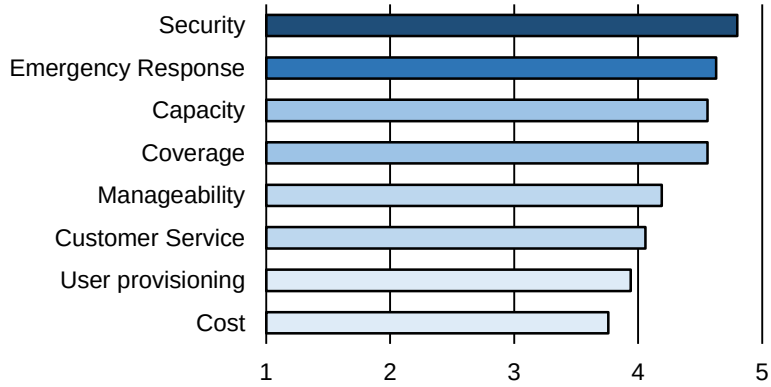



The respondents were then asked to identify which provider they use. Seventeen respondents (85%) indicated that they used Verizon as their primary mobile data provider. The seven agencies that utilized the Master State Contract procurement process used Verizon as their primary carrier. Some additional Verizon procurement processes included Local RFP and Coverage areas. Two respondents utilized Sprint (Federal Military and County Emergency Medical) and one used AT&T (County Fire Service) as their primary mobile data providers. Three (15%) of the agencies that utilized multiple providers supplemented their Verizon subscription with AT&T and Sprint.

No respondents indicated that their agency or organization maintains and utilizes a private data network. This figure may have arose from the sampling error of mainly smaller-sized agencies.

## Factors for Choosing A Carrier

**(Figure 1.10)**




The Survey asked what factors were the most important in choosing a carrier. The respondents could choose from five options: 1. Not at all important; 2. Slightly important; 3. Moderately important; 4. Very important; and 5. Extremely important.

Figure 1.10 shows the weighted averages of the respondents. Security (87% Extremely Important), Emergency Response (69% Extremely Important), Capacity (63% Extremely Important), and Coverage (72% Extremely Important) were the most important factors in Region 1. The least important factors were Cost (18% Extremely Important) and User Provisioning (31% Extremely Important). All of the factors, however, were ranked as at

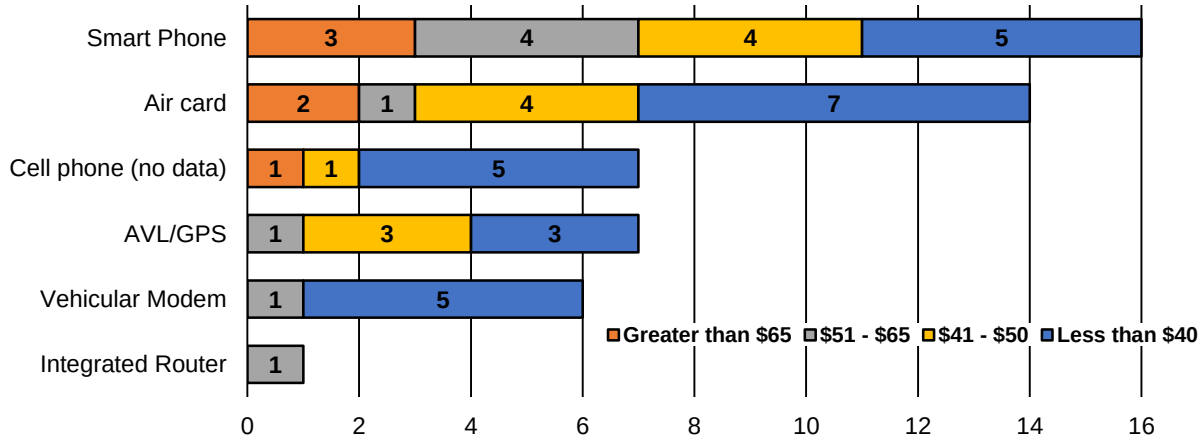
least moderately important. These results indicate that all of the facets of a mobile data network are important to public safety, and should not be overlooked.

## Devices

Respondents were queried on the types of mobile devices used by their agency, along with the monthly bill for each device. The vast majority of respondents (84%) indicated that their organization utilized Smart Phones with mobile data capabilities. Of those respondents, 56% paid less than $50 per month, 25% paid between $ 51 and $61, with the remaining 19% paying greater than $65. Only 35% of respondents indicated that their agency utilized cell phones that do not have access to data. The fact that a large majority (84%) of respondent agencies are utilizing data capable smart phones highlights the paradigm shift from strictly voice enabled phones (35% of respondents) to those devices capable of supporting mission critical data applications. Other types of devices being utilized in Region 1 include air cards (70%), dedicated GPS devices (35%), and vehicular modems (30%).

**Monthly Bill per Mobile Device**

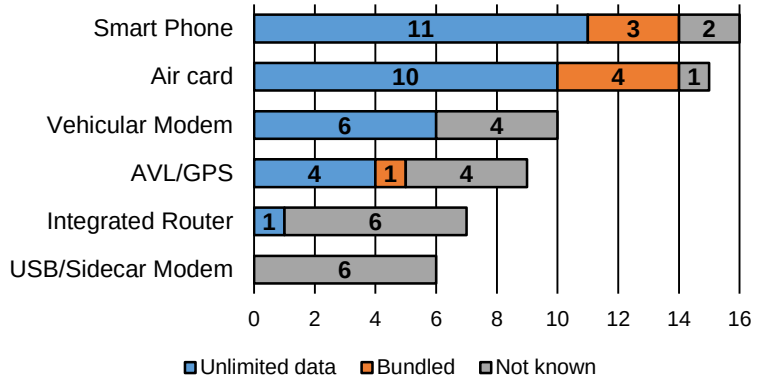
**(Figure 1.11)**




From Figure 1.11, it is clear that a large majority of agencies and organizations paid less than $51 per month per mobile device. Of those that utilized a State Master Contract procurement method, 86% paid less than $51. Other procurement methods that paid less than $51 included Local RFP and a Master Contract of another agency. The agencies that paid less than $51 were from all disciplines represented in the respondent pool, except for the Federal Military.

## Data Plan per Mobile Device

**(Figure 1.12)**

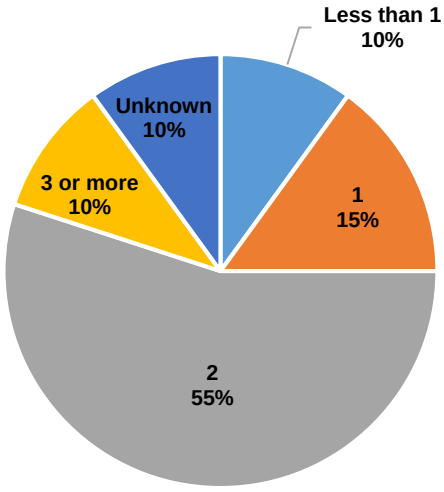



To understand the range of monthly bills, the survey asked the respondents what type of data plan their agency used. The two possible answers were unlimited or bundled data plans. Unlimited data plans allow each data capable device to use as much data as needed, without any financial penalties. Bundled data plans cap each device at a specific amount of data per month. To avoid financial penalties, the bundled data plan creates a shared pool of data limits across the entire agency. This arrangement allows one device that uses a large amount of data to be offset by a device that uses a small amount of data.

Of the 80% of respondents that indicated their agency utilized smart phones, 69% had an unlimited data plan, 19% had a bundled data plan, and 13% did not know what plan their organization utilized. The results for the Air card were very similar, with 67% of respondents utilizing unlimited data and 27% utilizing a bundled data plan. A majority of responses showed that public safety agencies utilize unlimited data plans, regardless of the type of device.

## Devices per Employee

**(Figure 1.13)**



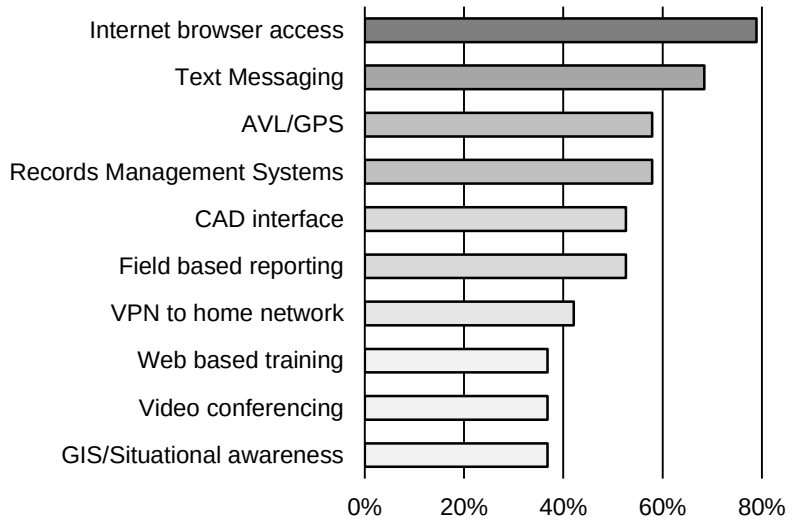

The Survey went on to ask respondents how many devices were allocated to each employee. A majority of respondents (55%) indicated that two devices were assigned to each employee. Of these agencies, the following disciplines were represented: 100% of Public Safety Communications, 40% of Fire Service, 67% of Law Enforcement, and 100% of Public Utility.

Two respondents (10%) indicated that a small amount of employees shared devices, with three (15%) agencies assigning each

employee a single device. The organizations that shared devices were small agencies from the Health and Law Enforcement disciplines. Two agencies (10%) assigned employees three or more devices, and two (10%) respondents did not know how many devices were allocated to each employee.

## Mission Critical Applications

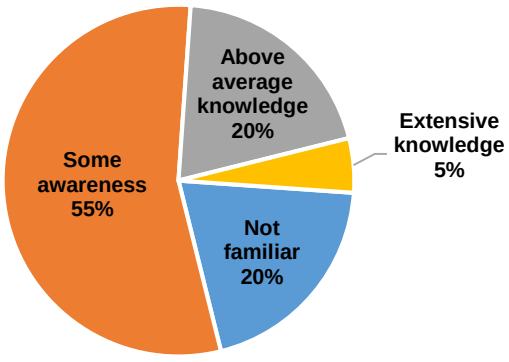
**(Figure 1.14)**




After inquiring why a commercial network was chosen, the Survey then asked how the network was used. Specifically, respondents were queried regarding which mission critical activities rely on mobile data networks. The majority of respondents (79%) identified Internet browser access as the top mission critical activity that relied on mobile data, followed by text messaging at 68%. Automatic Vehicle Location and Global Positioning System (AVL/GPS) and records management systems followed at 58% each. While internet browsing and sending one way messages do not utilize much data, records management and AVL/GPS require a large amount of bandwidth and data uplink/downlink speeds to perform properly. It is important to note that the future applications used by public safety have yet to be determined, but the recent trend indicates an increase in technology such as body worn cameras and applications that increase situational awareness, which utilize larger amounts of data transfers.

## Agency Awareness of FloridaNet

**(Figure 1.15)**




The final question focused upon the respondents' awareness of the FloridaNet program. Understanding if an agency is familiar with FloridaNet will aid in subsequent education and outreach development initiatives. A majority of respondents (80%) indicated that their organization is familiar with the FloridaNet

project, with one (5%) having extensive knowledge, four (20%) having above average knowledge, and 11 (55%) having some awareness. Four (20%) respondents indicated that their agency was not familiar with the FloridaNet project at all. One of the goals of FloridaNet is to actively engage and obtain input from all potential public safety users of the NPSBN in order to obtain the best possible network for Florida's local public safety organizations. Based upon these results, FloridaNet must seek to engage those agencies who are not familiar with FloridaNet, and increase participation of those that have some awareness until 100% of the agencies across Region 1 have extensive knowledge of the initiative.

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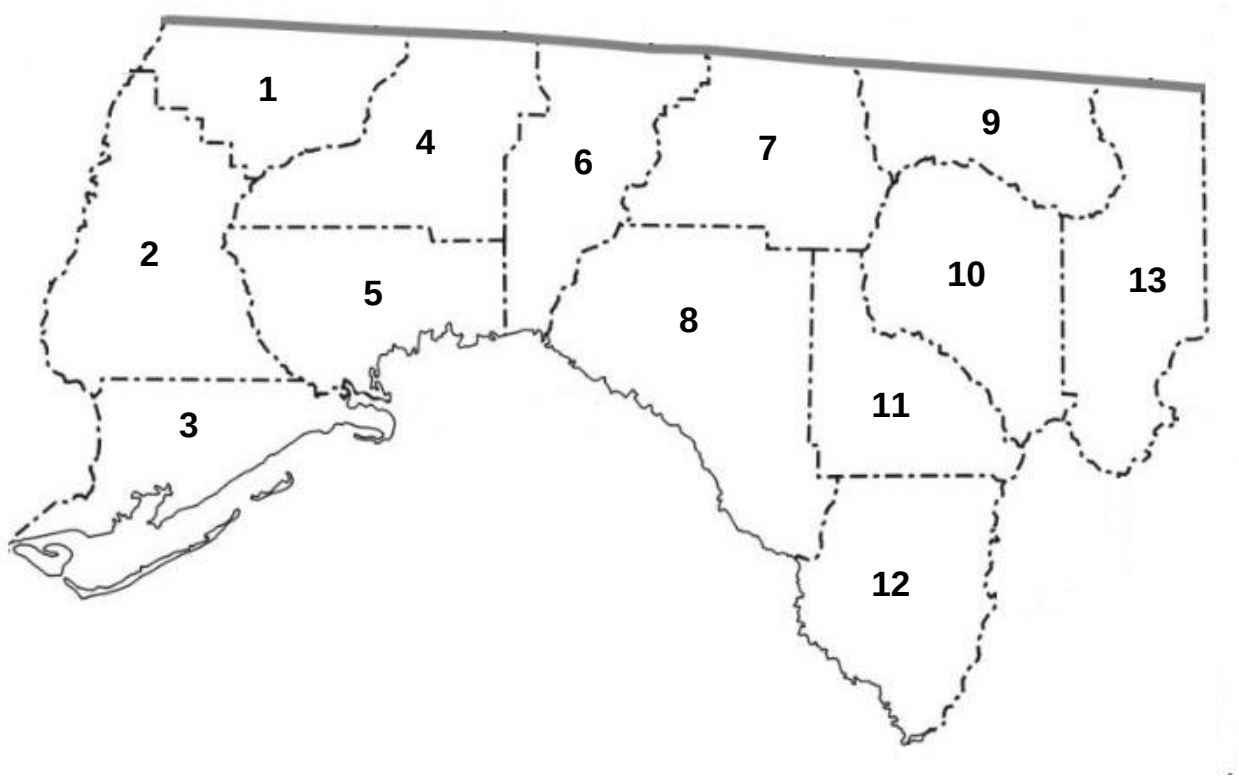
# Region 2




| | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* | | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* |
|---|---|---|---|---|---|---|---|---|---|
| ***1*** | Gadsden | 46,389 | 516 | 90 | ***8*** | Taylor | 22,570 | 1,043 | 22 |
| ***2*** | Liberty | 8,365 | 836 | 10 | ***9*** | Hamilton | 14,799 | 514 | 29 |
| ***3*** | Franklin | 11,549 | 535 | 22 | ***10*** | Suwannee | 41,551 | 689 | 60 |
| ***4*** | Leon | 275,487 | 667 | 413 | ***11*** | Lafayette | 8,870 | 543 | 16 |
| ***5*** | Wakulla | 30,776 | 606 | 51 | ***12*** | Dixie | 16,422 | 705 | 23 |
| ***6*** | Jefferson | 14,761 | 598 | 25 | ***13*** | Columbia | 67,531 | 798 | 85 |
| ***7*** | Madison | 19,224 | 696 | 28 | | | | | |

Region 2 consists of 13 counties in the center of the Florida Panhandle. This geographic breakdown is commensurate with the Florida Department of Law Enforcement's (FDLE) Regional Domestic Security Task Force (RDSTF) regions. The RDSTF geographic structure was chosen due to its familiarity and leadership among the public safety profession throughout the State.

Of the 13 counties in Region 2, six share a border with a neighboring State, and five have coastlines along the Gulf of Mexico. The most populous county in Region 2 is Leon (275,487), which is also the most densely populated county (413). Leon County also houses the most populous city: Tallahassee with a population density of 1,809/sq mi. Tallahassee is the State Capitol, which poses increased public safety demands. Liberty County has both the smallest population (8,365) and the smallest population density of 10/sq mi. The largest U.S. National Forest in Florida, Apalachicola (576,652 acres), is located here, as well. This region can be characterized as mainly rural, with one major metropolitan statistical area with a population over 350,000. Over 300 individual public safety organizations and agencies exist across Region 2.

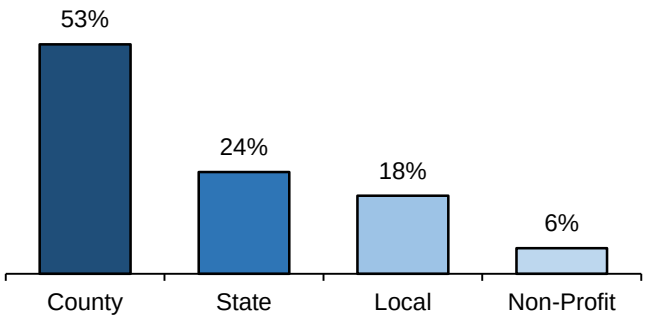
The Department of Homeland Security's Office of Emergency Communication's CASM NextGen mapping and database tool was utilized to obtain a list of public safety agencies. This list was then divided into the seven different RDSTF regions. Each region's list was used to ascertain the technical point of contact for each agency and then request that they complete the Contract Vehicle Survey for their agency. It is important to note that not all agencies at this time had provided a point of contact, which resulted in a smaller sample size.

## Demographics

To gain insight into Region 2, the Contract Vehicle Survey was sent to 76 identified public safety practitioners.

**Jurisdictional Level**

**(Figure 2.1)**



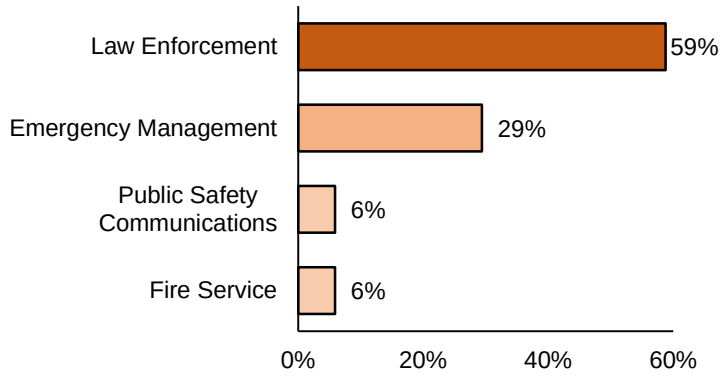

The Survey was completed by 17 respondents, which represents a 22% completion rate. Of these 17 respondents, nine (53%) were from County government, four from State government (24%), three (18%) from Local government, and one (5%) from a Non-Profit organization. While a majority of respondents were from the county level, these results indicate participation at diverse levels of government.

Of the 17 respondents, eight (47%) were from Leon County, two (12%) were from Franklin County, two (12%) were from Suwannee County, one (6%) was from Liberty County, one (6%) was from Wakulla County, one (6%) was from Jefferson County, one (6%) was from

Dixie County, and one (6%) was from Columbia County. The remaining five counties (Gadsden, Madison, Taylor, Hamilton, and Lafayette) did not participate. The fact that Leon County was represented in a much greater fashion may represent a sampling error. Those counties that did respond, however, do represent a diverse demographic, which may validate the Region 2 sample.

**Discipline**

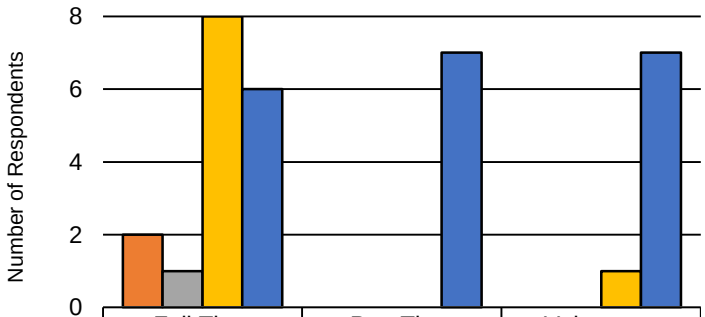
**(Figure 2.2)**




In addition to identifying their organization's jurisdictional level, respondents were also queried on the discipline that best described their agency or division. There were four disciplines represented. The most frequent, with ten (59%), identified as Law Enforcement, followed by five (29%) identified as Emergency Management. Public Safety Communications and Fire Services were represented by one respondent, each (6% each). These results may represent a sampling error due to the larger representation of Law Enforcement and the absence of practitioners from the diverse public safety professions.

**Types of Employees**

**(Figure 2.3)**



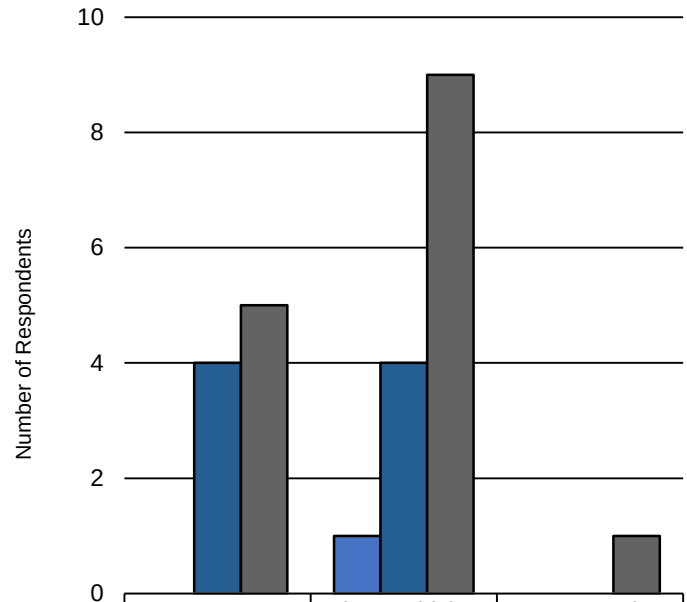

| | Full Time | Part Time | Volunteers |
|---|---|---|---|
| Greater than 500 | 2 | 0 | 0 |
| 201-500 | 1 | 0 | 0 |
| 51-200 | 8 | 0 | 1 |
| 0-50 | 6 | 7 | 7 |

Respondents were asked to identify the number of full time employees, part time employees, and volunteers. Six of the 17 (35%) respondents to this question indicated their agency had 50 or less full time employees. Eight (47%) responded that their agency had between 51 and 200 full time employees, while two (13%) had a workforce consisting of 201 to 500 full time employees. Two (12%) agencies from Region 2 maintained a full time work force of greater than 500 full time employees. Seven respondent organizations (41%) employed part time

personnel, all of which maintained less than 50. Almost two thirds (68%) of respondents utilized the help of volunteers. Of these respondents, seven (41%) maintained less than 50 volunteers, and one (6%) maintained between 51 and 200. This data shows that the Region 2 sample consists of mainly moderate-sized agencies and organizations.

## Vehicle Information

**(Figure 2.4)**

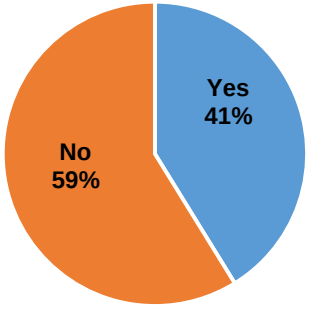



| | Fleet Vehicles that utilize data | Fleet Vehicles that don't utilize data | Personal Vehicles that utilize data |
|---|---|---|---|
| 201-500 | 0 | 1 | 0 |
| 51-200 | 4 | 4 | 0 |
| 1-50 | 5 | 9 | 1 |

The Survey went on to query information regarding data utilization as it relates to fleet and personal vehicles. A majority, or 11 of 17, respondents (65%) indicated that their agency's fleet vehicles utilized data, with five (29%) agencies operating 1 to 50 vehicles and four (24%) agencies maintaining 51 to 200 fleet vehicles equipped with data capabilities. Nine of the respondents' agencies (53%) maintained 1 to 50 fleet vehicles that did not utilize data. Only one respondent (6%) identified that their agency utilized data in personal vehicles, and operated between 1 and 50 vehicles. These results maintain the fact that most of Region 2 respondents were from moderate-sized agencies, as almost an equal amount of agencies operated between 51 and 200 fleet vehicles, as those that operated less than 50 (24% and 29%, respectively).

## Do You Monitor Data?

**(Figure 2.5)**




Respondents were asked to identify if their organization utilized a data monitoring product. This question will be important for subsequent FloridaNet data collection efforts. Access to data monitoring files may aid in the establishment of a needed broadband baseline coverage map for the first responders and disaster recovery users operating in Region 2. The responses

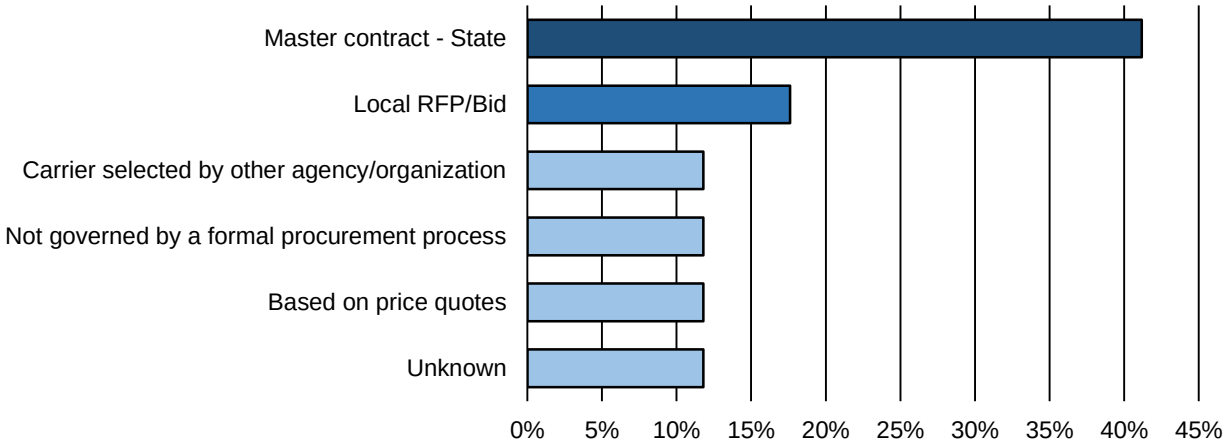
were slightly skewed: ten did not use a monitoring product (59%) and seven did use one (41%). Five (71%) of those agencies that did monitor data were from the Law Enforcement discipline, and one respondent the Emergency Management (14%), along with one from Fire Services (14%). This representation is heavily skewed towards Law Enforcement's utilization of a data monitoring tool, which may aid in further extrapolation in subsequent data collection efforts. It is a goal of FloridaNet that those ten agencies that do utilize a data monitoring product share their data so that the local public safety users in Region 2 maintain a strong and vocal presence in the determination of coverage and capacity in the geographic area where they operate their public safety mission.

## Carrier Information

The Survey asked respondents to identify the procurement method of their current carrier(s). Seven respondents (41%) indicated that their agency used the State's Master Contract. Three respondents (18%) utilized a Local RFP/Bid process, while two organizations (12%) employed price quotes. The remaining respondents either selected the carrier based upon a non-formalized process (12%), carrier was selected by another agency (12%), or did not know their agency's procurement method (12%).

**Carrier Procurement Method**

**(Figure 2.6)**

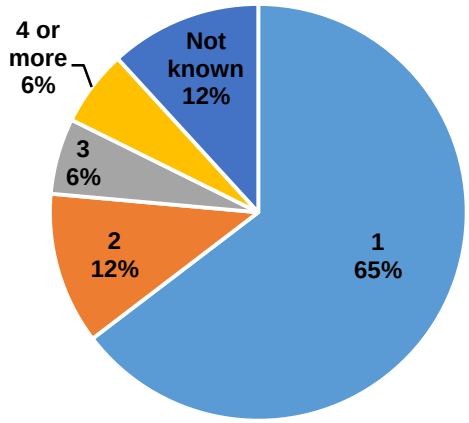



Of the seven agencies that utilized the Master State Contract, four (57%) were from the County level, and three (43%) from the State level. The two respondent Local agencies utilized a Local RFP/Bid process. Of the ten Law Enforcement representatives, five (50%) utilized the State's Master Contract, two (50%) utilized a Local RFP/Bid process, two (20%) were not governed by a formal process, one (10%) was selected by another agency, one (10%) did not know their agency's procurement method, and one (10%) was

based on price quotes. The sole Fire Services respondent employed a Local RFP/Bid process.

## Number of Required Carriers

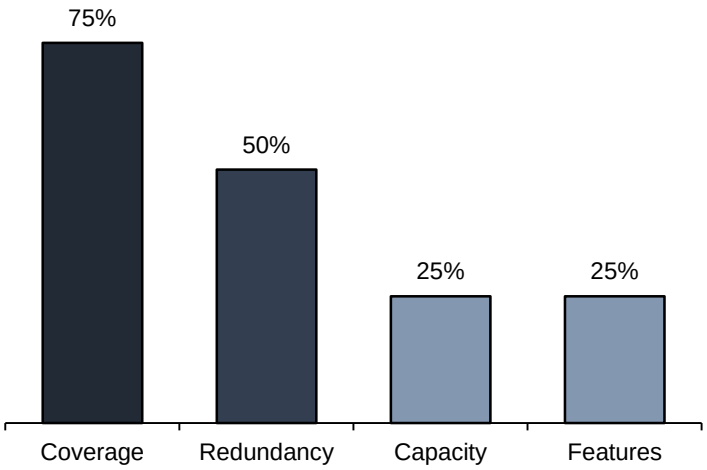
**(Figure 2.7)**




In conjunction with their agency's procurement method, respondents were asked how many carriers were needed to fulfill their public safety mission. Eleven respondents (65%) answered that their agency required only one commercial provider. These 11 respondents represent all of the levels of jurisdictions and disciplines. Two respondent agencies needed two carriers (12%), along with two needing three or four. The respondents indicating a need for multiple carriers were from the State and County levels. Half of the agencies requiring multiple carriers were form Law Enforcement, while the other half represented the Emergency Management discipline. The remaining two respondents (12%) did not know how many carriers their agency or organization required to carryout their public safety mission and were from the State and County jurisdictional levels.

## Why Do You Require Multiple Carriers?

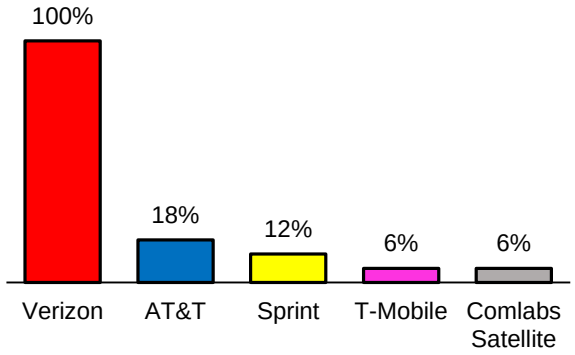
**(Figure 2.8)**




The Survey went on to query why those agencies that use more than one provider required multiple carriers. These four agencies were from the County and State jurisdictional levels with one Law Enforcement and one Emergency Management agency responding from each level. This important follow-up question should reveal the current commercial shortcomings that FirstNet must address for full public safety adoption. The Law Enforcement agencies cited Coverage, Capacity, and Features as the driving factors for requiring multiple carriers, with the Emergency Management disciplinants indicating Coverage and Redundancy as reasons for requiring multiple mobile data sources.

## Commercial Carrier Provider

**(Figure 2.9)**

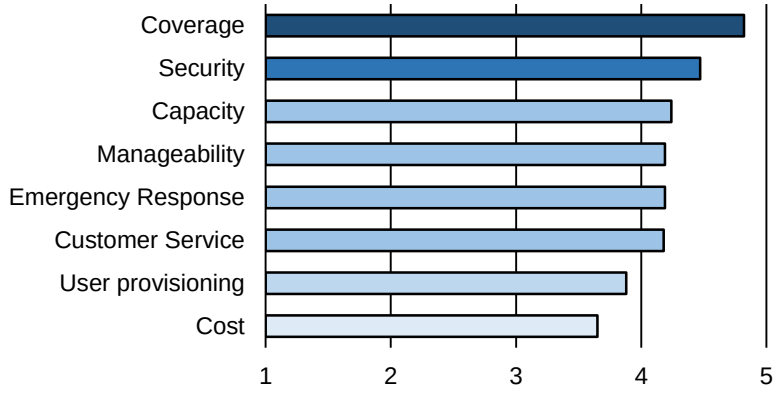



The respondents were then asked to identify which provider they use. All seventeen respondents (100%) indicated that they used Verizon as their primary mobile data provider. The seven agencies that utilized the Master State Contract procurement process used Verizon as their primary carrier. Some additional Verizon procurement processes included Local RFP and Price Quotes. A State Law Enforcement organization utilized AT&T, T-Mobile, and Verizon, while a State Emergency Management agency operated Sprint, Comlabs Satellite, and Verizon networks for data redundancy. Regardless the size of the Emergency Management agency, the respondent's organization utilized multiple carriers. The Law Enforcement agencies that utilized multiple carriers were from the larger organizations, with hundreds of full time employees, each.

No respondents indicated that their agency or organization maintains and utilizes a private data network. This figure may have arose from the sampling error of mainly moderately-sized agencies.

## Factors for Choosing A Carrier

**(Figure 2.10)**




The Survey asked what factors were the most important in choosing a carrier. The respondents could choose from five options: 1. Not at all important; 2. Slightly important; 3. Moderately important; 4. Very important; and 5. Extremely important.

Figure 2.10 shows the weighted averages of the respondents. Coverage (82% Extremely Important), Security (59% Extremely Important), Capacity (53% Extremely Important), and Emergency Response (53% Extremely Important) were the most important factors in Region 2. The least important factors were Cost (18% Extremely Important) and User Provisioning (29% Extremely Important). The respondents that indicated Cost as

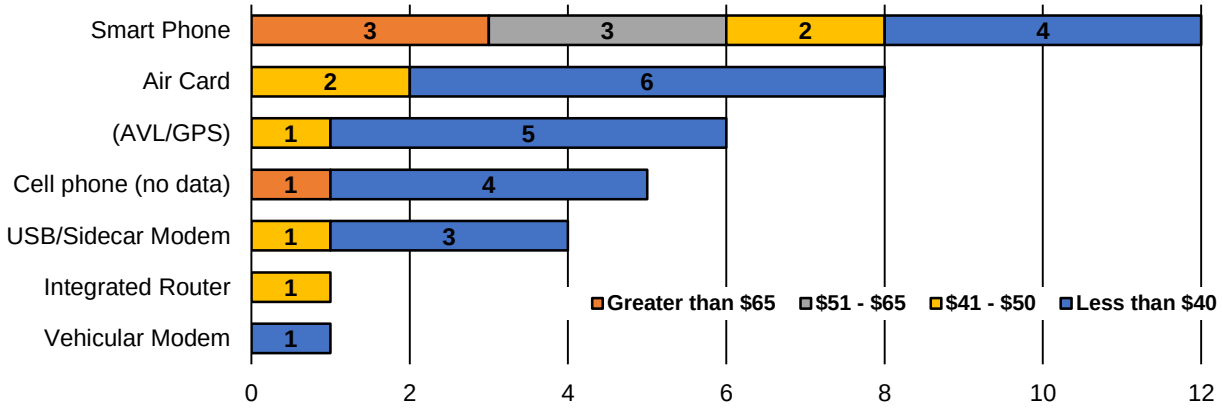
Extremely Important were from Local and County agencies with a work force under 50 full time employees. All of the factors, however, were ranked as at least moderately important. These results indicate that all of the facets of a mobile data network are important to public safety, and should not be overlooked.

## Devices

Respondents were queried on the types of mobile devices used by their agency, along with the monthly bill for each device. The vast majority of respondents (75%) indicated that their organization utilized Smart Phones with mobile data capabilities. Of those respondents, 50% paid less than $50 per month, 30% paid between $51 and $61, with the remaining 20% paying greater than $65. Only 31% of respondents indicated that their agency utilized cell phones that do not have access to data. The fact that a large majority (75%) of respondent agencies were utilizing data capable smart phones highlights the paradigm shift from strictly voice enabled phones (31% of respondents) to those devices capable of supporting mission critical data applications. Other types of devices being utilized in Region 2 included air cards (50%), dedicated GPS devices (38%), and USB/Sidecar modems (25%).

**Monthly Bill per Mobile Device**

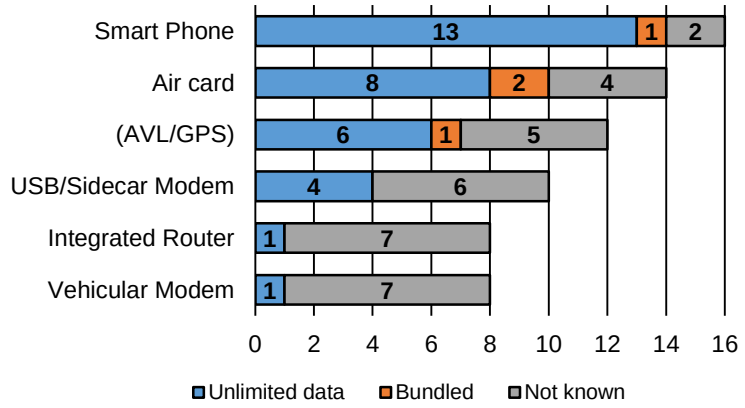
**(Figure 2.11)**




From Figure 2.11, it is clear that a large majority of agencies and organizations pay less than $51 per month per mobile device. Of those organizations that utilized multiple carriers, one paid more than $65 per month, one between $51 and $65, and one paid less than $40 per month. The agencies that paid the least amount of money per month, across all devices, were located in Leon, Columbia, and Suwannee counties, representing State, County, and Local jurisdictional levels.

## Data Plan per Mobile Device

**(Figure 2.12)**

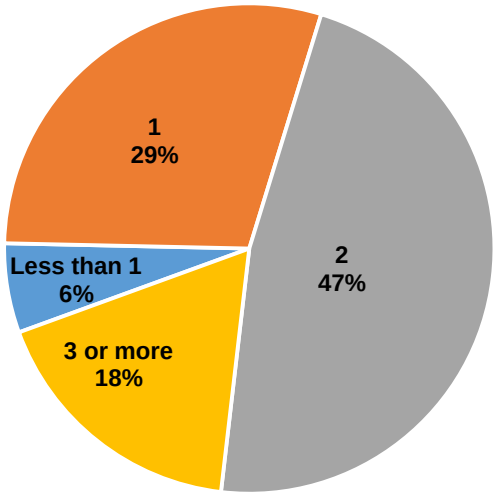



To understand the range of monthly bills, the survey asked the respondents what type of data plan their agency used. The two possible answers were unlimited or bundled data plans. Unlimited data plans allow each data capable device to use as much data as needed, without any financial penalties. Bundled data plans cap each device at a specific amount of data per month. To avoid financial penalties, the bundled data plan creates a shared pool of data limits across the entire agency. This arrangement allows one device that uses a large amount of data to be offset by a device that uses a small amount of data.

Of the respondents that indicated their agency utilizes smart phones, 81% had an unlimited data plan, 6% had a bundled data plan, and 13% did not know what plan their organization utilized. The results for the Air card were similar, with 50% of respondents utilizing unlimited data and 8% utilizing a bundled data plan, and 42% did not know what type of plan their organization used. An overwhelming majority of responses showed that public safety agencies utilize unlimited data plans, regardless of the type of device.

## Devices per Employee

**(Figure 2.13)**



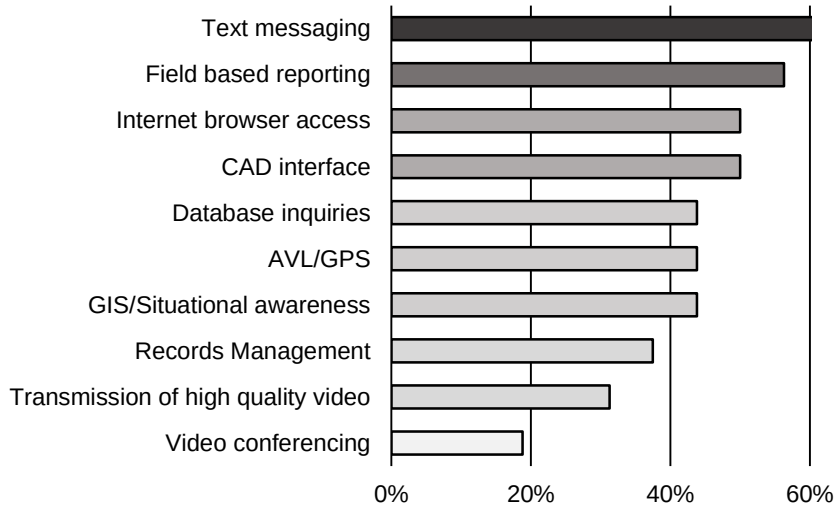

The Survey went on to ask respondents how many devices were allocated to each employee. A majority of respondents (47%) indicated that two devices were assigned to each employee. Of these agencies, the following disciplines were represented: 100% of Public Safety Communications, 60% of Emergency Management, and 40% of Law Enforcement.

One Local Emergency Management respondents (6%) indicated that a small amount of employees shared devices, with five (29%) agencies assigning each employee

a single device. The organizations that assigned a single device were one Local Fire Services and four County Law Enforcement agencies. Three agencies (18%) assigned employees three or more devices. These agencies included one County and one State Law Enforcement agencies and a Local Emergency Management organization.

**Mission Critical Applications**

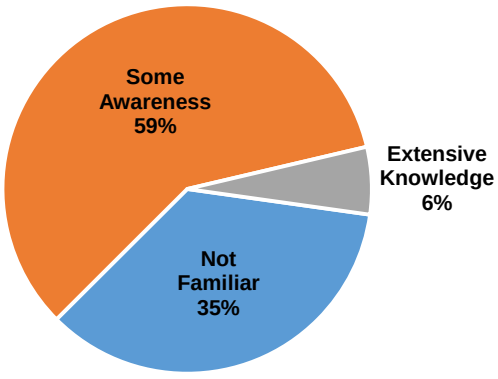
**(Figure 2.14)**




After inquiring why a commercial network was chosen, the Survey then asked how the network was used. Specifically, respondents were queried regarding which mission critical activities rely on mobile data networks. The majority of respondents (63%) identified text messaging as the top mission critical activity that relied on mobile data, followed by field based reporting at 56%. Internet browsing and CAD dispatch followed at 50%, each. Databased inquiries, Automatic Vehicle Location and Global Positioning System (AVL/GPS), and GIS/Situational awareness followed at 44%, each. The results shown in Figure 2.14 may be skewed due to the large representation of Law Enforcement and Emergency Management. It is important to note that the future applications used by public safety have yet to be determined, but the recent trend indicates an increase in technology such as body worn cameras and applications that increase situational awareness, which utilize larger amounts of data transfers.

**Agency Awareness of FloridaNet**

**(Figure 2.15)**

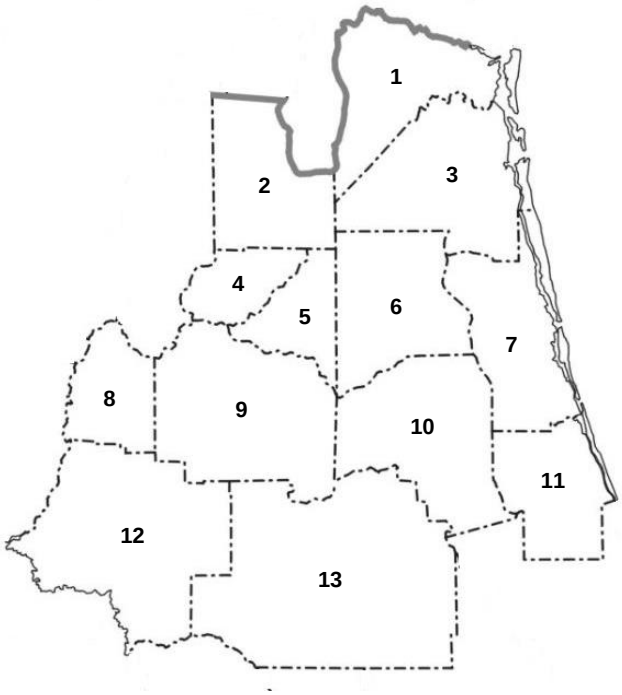



The final question focused upon the respondents' awareness of the FloridaNet program. Understanding if an agency is familiar with FloridaNet will aid in subsequent education and outreach development initiatives. A majority of respondents (65%) indicated that their organization was familiar with the FloridaNet project, with one (6%) having extensive

knowledge, and 10 (59%) having some awareness. Six (35%) respondents indicated that their agency was not familiar with the FloridaNet project at all. One of the goals of FloridaNet is to actively engage and obtain input from all potential public safety users of the NPSBN in order to obtain the best possible network for Florida's local public safety organizations. Based upon these results, FloridaNet must seek to engage those agencies who are not familiar with FloridaNet, and increase participation of those that have some awareness until 100% of the agencies across Region 2 have extensive knowledge of the initiative.

*This document was prepared by FloridaNet using funds under award 12-10-S13012 from the National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce (DOC). The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the NTIA, DOC, or FirstNet*

# Region 3




| | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* | | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* |
|---|---|---|---|---|---|---|---|---|---|
| ***1*** | Nassau | 75,710 | 649 | 113 | ***8*** | Gilchrist | 16,939 | 350 | 48 |
| ***2*** | Baker | 27,115 | 585 | 46 | ***9*** | Alachua | 256,380 | 875 | 283 |
| ***3*** | Duval | 885,855 | 762 | 1,134 | ***10*** | Putnam | 74,364 | 728 | 102 |
| ***4*** | Union | 15,535 | 244 | 64 | ***11*** | Flagler | 99,956 | 485 | 197 |
| ***5*** | Bradford | 28,520 | 294 | 97 | ***12*** | Levy | 40,801 | 1,118 | 36 |
| ***6*** | Clay | 196,399 | 604 | 316 | ***13*** | Marion | 331,298 | 1,585 | 209 |
| ***7*** | St. Johns | 209,647 | 601 | 316 | | | | | |

Region 3 consists of 13 counties in the Northeast corner Florida. This geographic breakdown is commensurate with the Florida Department of Law Enforcement's (FDLE) Regional Domestic Security Task Force (RDSTF) regions. The RDSTF geographic structure was chosen due to its familiarity and leadership among the public safety profession throughout the State.

Of the 13 counties in Region 3, two share a border with a neighboring State, one has a coastline along the Gulf of Mexico, and four have a significant coastline along the Atlantic Ocean. The most populous county in Region 3 is Duval (885,855), which is also the most densely populated (1,134/sq mi). Duval County also houses the most populous city:

Jacksonville with a population density of 1,100/sq mi. Union County is the least populated county with 15,535 individuals, while Levy County has the lowest population density of 36/sq mi. This region can be characterized as moderately rural, with a majority of counties containing population densities over 100/sq mi. Additionally, a U.S. Census Major Statistical Area exists with a population of 1,345,596. A major military instillation and part of a U.S. National Forest, are also present. Over 300 individual public safety organizations and agencies exist across Region 3.

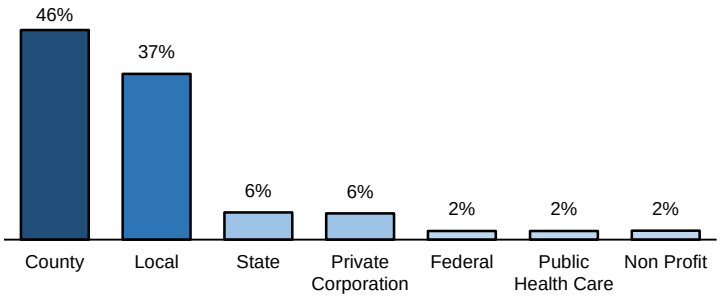
The Department of Homeland Security's Office of Emergency Communication's CASM NextGen mapping and database tool was utilized to obtain a list of public safety agencies. This list was then divided into the seven different RDSTF regions. Each region's list was used to ascertain the technical point of contact for each agency and then request that they complete the Contract Vehicle Survey for their agency. It is important to note that not all agencies at this time had provided a point of contact, which resulted in a smaller sample size.

## Demographics

To gain insight into Region 3, the Contract Vehicle Survey was sent to 70 identified public safety practitioners.

**Jurisdictional Level**

**(Figure 3.1)**



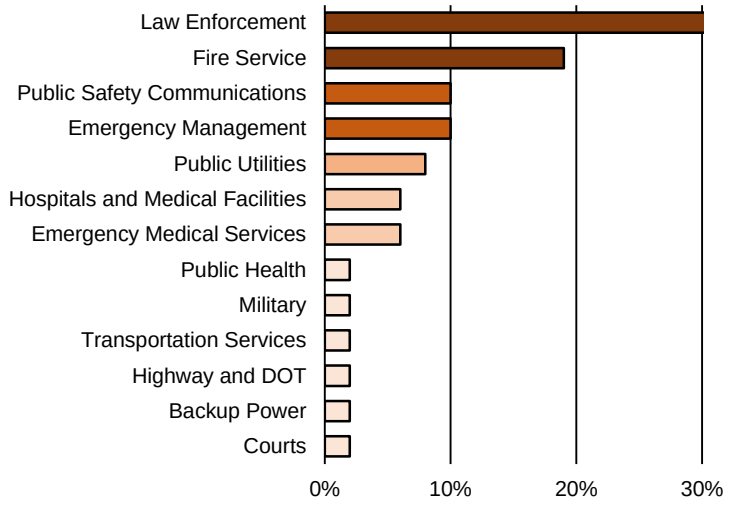

The Survey was completed by 52 respondents, which represents a 74% completion rate. Of these 52 respondents, 24 (46%) were from County government, 19 from Local government (37%), three (6%) from Local government, one (2%) from Federal government, one (2%) from Public Health Care, and one (2%) Non-Profit organization. While a majority of respondents were from the county level, these results indicate participation at diverse levels of government.

Of the 52 respondents, 12 (23%) were from Clay County, 10 (19%) were from Alachua County, nine (17%) were from Marion County, three (6%) were from Duval County, three (6%) were from Levy County, two (4%) were from Baker County, one (2%) was from Nassau County, one (2%) was from Union County, one (2%) was from Putnam County, and one (2%) was from St. Johns County. The remaining two counties (Bradford and

Gilchrist) did not participate. The fact that Duval County represented only 6% of the respondents may skew the results toward the less densely, more rural counties. A large portion of the counties (85%) did respond, however, which may reveal a valid view of Region 3.

## Discipline

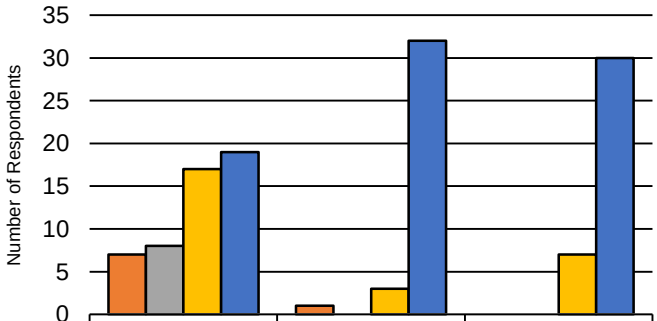
**(Figure 3.2)**




In addition to identifying their organization's jurisdictional level, respondents were also queried on the discipline that best described their agency or division. There were 13 disciplines represented. The most frequent, with 16 (31%), identified as Law Enforcement, followed by 10 (19%) identified as Fire Services. Public Safety Communications and Emergency Management were represented by 5 respondents, each (10% each). While a wide array of public safety disciplines were sampled, the high proportion of Law Enforcement professionals may represent a sampling error.

## Types of Employees

**(Figure 3.3)**



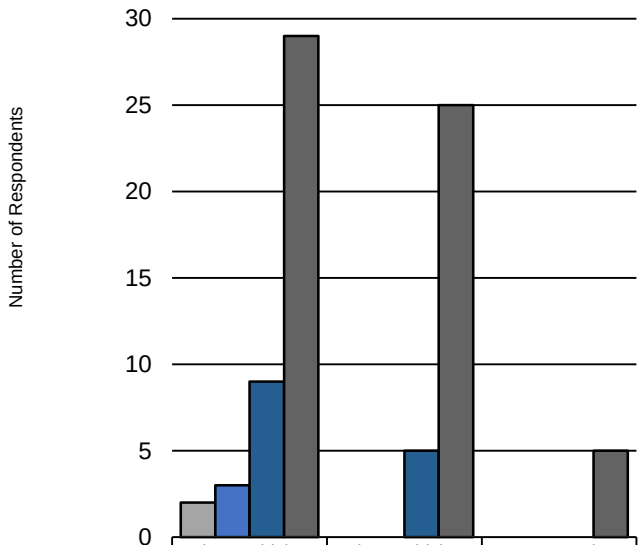

| | Full Time | Part Time | Volunteers |
|---|---|---|---|
| Greater than 500 | 7 | 1 | 0 |
| 201-500 | 8 | 0 | 0 |
| 51-200 | 17 | 3 | 7 |
| 0-50 | 19 | 32 | 30 |

Respondents were asked to identify the number of full time employees, part time employees, and volunteers. Nineteen of the 52 (37%) respondents to this question indicated that their agency had 50 or less full time employees. Seventeen (33%) responded that their agency had between 51 and 200 full time employees, while eight (15%) had a workforce consisting of 201 to 500 full time employees. Seven (13%) agencies from Region 3 maintained a full time work force greater than 500 employees. Thirty six respondent organizations (69%) employed part

time personnel, a large majority of which maintained less than 50 (88%). Almost three quarters (71%) of respondents utilized the help of volunteers. Of these respondents, thirty (81%) maintained less than 50 volunteers, and seven (19%) maintained between 51 and 200. This data shows that Region 3 consists of mainly moderate-sized agencies with a representation from some large organizations.

## Vehicle Information

**(Figure 3.4)**

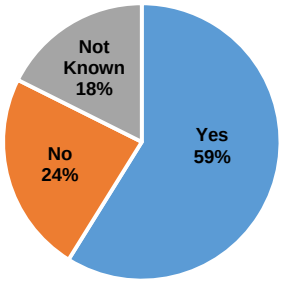



| | Fleet Vehicles that utilize data | Fleet Vehicles that don't utilize data | Personal Vehicles that utilize data |
|---|---|---|---|
| Greater than 500 | 2 | 0 | 0 |
| 201-500 | 3 | 0 | 0 |
| 51-200 | 9 | 5 | 0 |
| 1-50 | 29 | 25 | 5 |

The Survey went on to query information regarding data utilization as it relates to fleet and personal vehicles. A majority, or 43 of 52, respondents (83%) indicated that their agency's fleet vehicles utilize data, with 29 (67%) agencies operating 1 to 50 vehicles, and nine (21%) agencies maintaining 51 to 200 fleet vehicles equipped with data capabilities. Five larger County Law Enforcement and Public Safety Communications agencies operated over 200 vehicles equipped with data. Twenty five of the respondent agencies (48%) maintained 1 to 50 fleet vehicles that did not utilize data. Only five respondents (10%) identified that their agency utilized data in personal vehicles, all of which operated between 1 and 50 vehicles. These results maintain the fact that most of Region 3 respondents are from moderate-sized agencies, and a few larger organizations, as the number of fleet vehicles is similar to the number of full-time employees.

## Do You Monitor Data?

**(Figure 3.5)**




Respondents were asked to identify if their organization utilized a data monitoring product. This question will be important for subsequent FloridaNet data collection efforts. Access to data monitoring files may aid in the establishment of a needed broadband baseline coverage map for the first

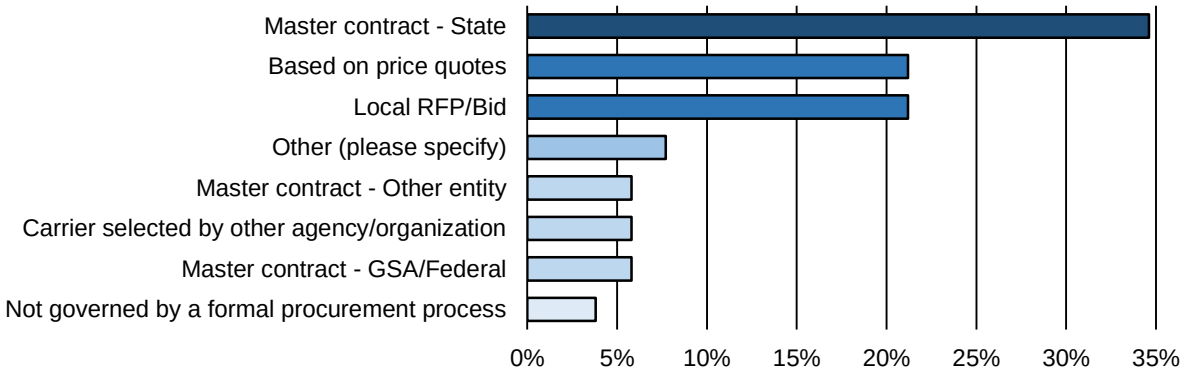
responders and disaster recovery users operating in Region 3. The responses were slightly skewed: 30 (59%) used a monitoring product, 12 (24%) did not use one, and nine (18%) respondents did not know. Ten (33%) of those agencies that did monitor data were from the Law Enforcement discipline, with six respondents from Fire Services (20%). This representation is parallel with the fact that Law Enforcement make up both 31% of respondents, and 33% of the agencies that monitor data. It is a goal of FloridaNet that those 30 agencies that do utilize a data monitoring product share their data so that the local public safety users in Region 3 maintain a strong and vocal presence in the determination of coverage and capacity in the geographic area where they operate their public safety mission.

## Carrier Information

The Survey asked respondents to identify the procurement method of their current carrier(s). Eighteen respondents (35%) indicated that their agency used the State's Master Contract. Eleven (21%) respondents, each, utilized a Local RFP/Bid process or Price Quotes. The remaining twelve respondents (23%) utilized a wide range of methods, including a non-formalized process (4%), carrier was selected by another agency (6%), or through a Federal or Other Entity Master Contract (6% and 6%, respectively).

### Carrier Procurement Method

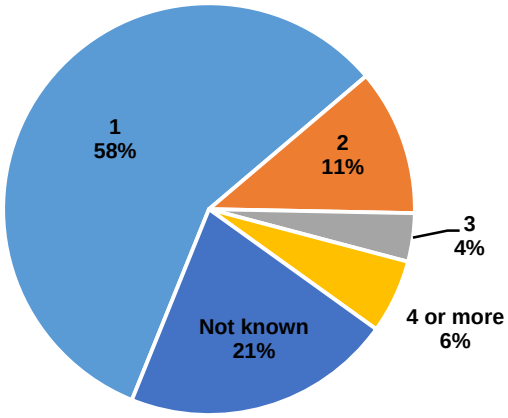
**(Figure 3.6)**




Of the 18 agencies that utilized the Master State Contract, nine (50%) were from the County level, seven (39%) from the Local level and two (11%) from the State level. The two respondent Local agencies utilized a Local RFP/Bid process. Of the 16 Law Enforcement representatives, nine (56%) utilized the State's Master Contract, two (13%) utilized a Local RFP/Bid process, two (13%) were based upon price quotes, two (13%) did not know their agency's procurement method, and one (6%) was based on carrier Coverage. A majority of Fire Services respondents employed the Master State Contract or Price Quotes (33% and 33%, respectively).

## Number of Required Carriers

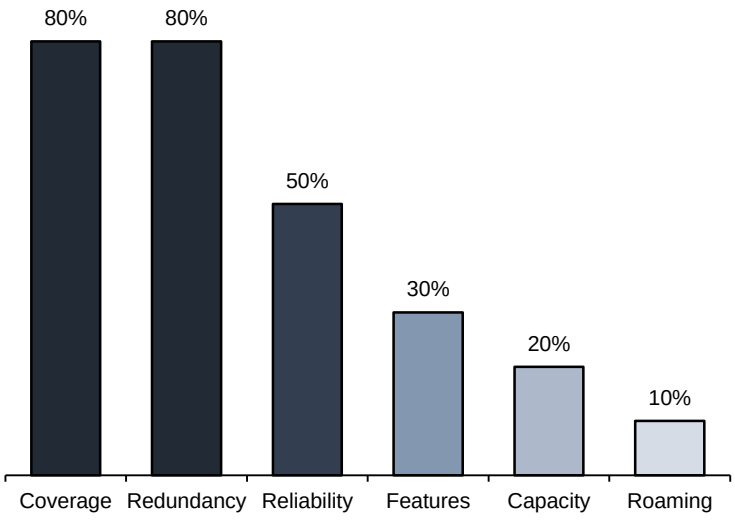
**(Figure 3.7)**




In conjunction with their agency's procurement method, respondents were asked how many carriers were needed to fulfill their public safety mission. Thirty eight respondents (58%) answered that their agency required only one commercial provider. These 38 respondents represent all of the levels of jurisdictions and disciplines. Six respondent agencies needed two carriers (11%), along with five needing more than three. The respondents indicating a need for multiple carriers were from the State, County, and Local levels. Four of those agencies requiring multiple carriers were form Law Enforcement (36%). The remaining eleven respondents (21%) did not know how many carriers their agency or organization required to carryout their public safety mission and were from the State, County, and Local jurisdictional levels, representing nine individual disciplines.

## Why Do You Require Multiple Carriers?

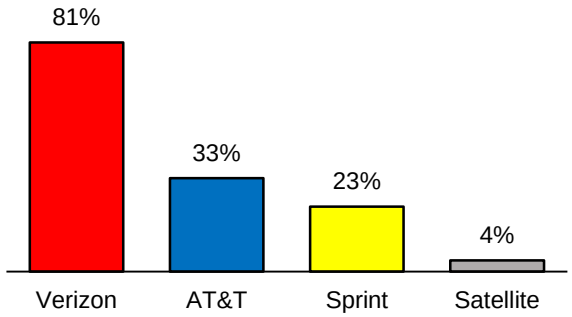
**(Figure 3.8)**




The Survey went on to query why those agencies that use more than one provider require multiple carriers. These 38 agencies were from the State, County, and Local jurisdictional levels, representing diverse disciplines. This important follow-up question should reveal the current commercial shortcomings that FirstNet must address for full public safety adoption. Coverage and Redundancy were the most important factors for requiring multiple carriers in Region 3. Of those that cited Coverage as the most important factor, five (63%) were from the less populated counties.

**Commercial Carrier Provider**

**(Figure 3.9)**

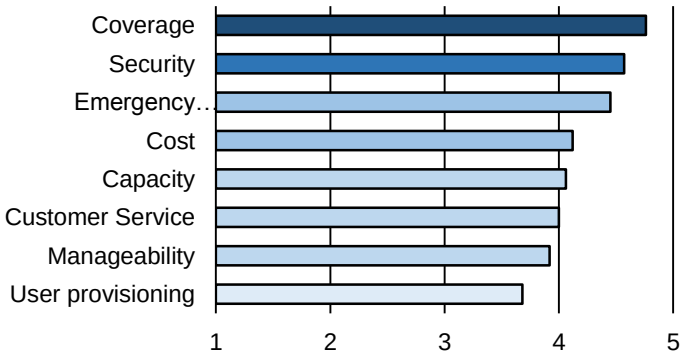



The respondents were then asked to identify which provider they use. Forty two respondents (81%) indicated that they used Verizon as their primary mobile data provider. The 16 (89%) agencies that utilized the Master State Contract procurement process used Verizon as their primary carrier, with the remaining two (11%) using AT&T. Two (4%) agencies, one Public Health Care and one County Law Enforcement, required satellite providers to complete their public safety mission. Both of these respondent agencies were located in Alachua County and one utilized coverage areas as a procurement method. The eleven (23%) respondents that utilized Sprint were from the less densely populated counties. Four of these organizations utilized price quotes (36%), four issued an RFP (36%), and one looked at coverage areas (9%).

One respondent in Region 3 owned and operated a private network. A private network may be deployed as private lines leased from common carriers and entirely architected by the network owner, or it may be a virtual private network (VPN) either over the Internet or one that was provisioned within a carrier's network. In Region 3, the sole respondent utilizing such a network was a Public Health Care agency, specializing in air transportation.

**Factors for Choosing A Carrier**

**(Figure 3.10)**




The Survey asked what factors were the most important in choosing a carrier. The respondents could choose from five options: 1. Not at all important; 2. Slightly important; 3. Moderately important; 4. Very important; and 5. Extremely important.

Figure 3.10 shows the weighted averages of the respondents. Coverage (82% Extremely Important), Security (69% Extremely Important), Emergency Response (59% Extremely Important), and Cost (35% Extremely Important) were the most important factors in Region 3. The least important factors were Manageability (25% Extremely Important) and

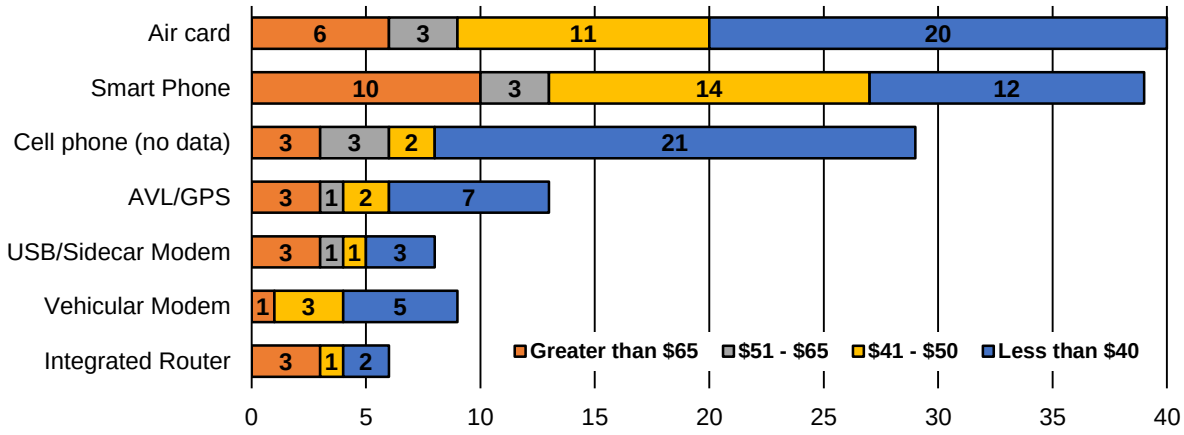
User Provisioning (26% Extremely Important). Of the respondents that did not rank Coverage as Extremely Important, 88% were from the Local Law Enforcement and Local Fire Services disciplines. All of the factors, however, were ranked as at least moderately important. These results indicate that all of the facets of a mobile data network are important to public safety, and should not be overlooked.

## Devices

Respondents were queried on the types of mobile devices used by their agency, along with the monthly bill for each device. The vast majority of respondents (75%) indicated that their organization utilized Smart Phones with mobile data capabilities. Of those respondents, 67% paid less than $50 per month, 8% paid between $51 and $61, with the remaining 26% paying greater than $65. Only 56% of respondents indicated that their agency utilized cell phones that did not have access to data. The fact that a large majority (78%) of respondent agencies are utilizing data capable smart phones highlights the paradigm shift from strictly voice enabled phones (56% of respondents) to those devices capable of supporting mission critical data applications. Other types of devices being utilized in Region 3 included air cards (77%), dedicated GPS devices (25%), and USB/Sidecar modems (15%).

**Monthly Bill per Mobile Device**

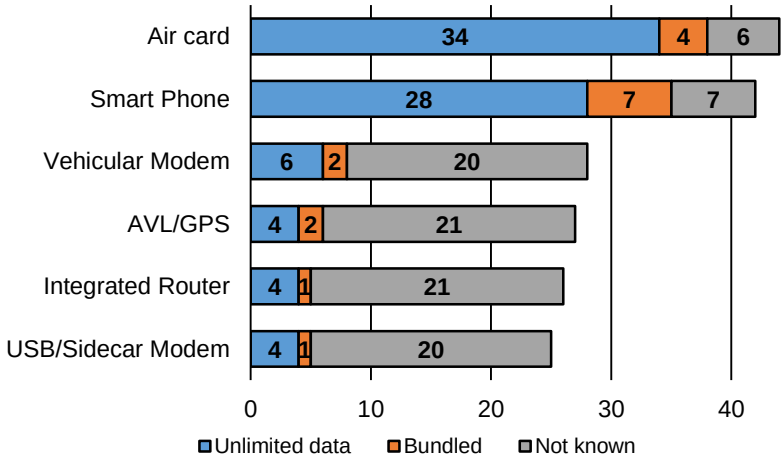
**(Figure 3.11)**




From Figure 3.11, it is clear that a large majority of agencies and organizations paid less than $51 per month per mobile device. Of those organizations that utilize multiple carriers, the only ones that paid greater than $65 per month had more than 4 carriers. The agencies that paid more than $65 dollars per month for Air cards were from nontraditional first responder disciplines such as public utilities and private companies.

## Data Plan per Mobile Device

**(Figure 3.12)**

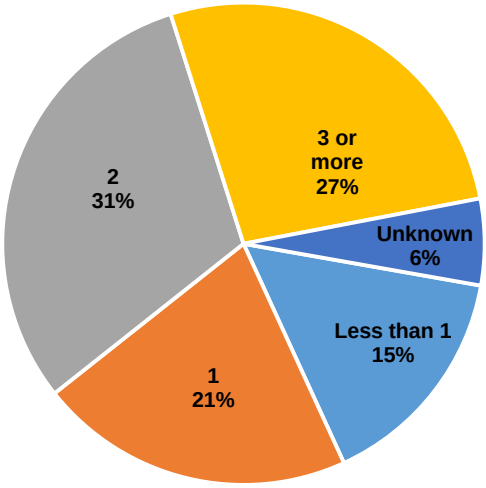



To understand the range of monthly bills, the survey asked the respondents what type of data plan their agency used. The two possible answers were unlimited or bundled data plans. Unlimited data plans allow each data capable device to use as much data as needed, without any financial penalties. Bundled data plans cap each device at a specific amount of data per month. To avoid financial penalties, the bundled data plan creates a shared pool of data limits across the entire agency. This arrangement allows one device that uses a large amount of data to be offset by a device that uses a small amount of data.

Of the respondents that indicated that their agency utilized smart phones, 72% had an unlimited data plan, 18% had a bundled data plan, and 18% did not know what plan their organization utilizes. The results for the Air card were similar, with 85% of respondents utilizing unlimited data and 10% utilizing a bundled data plan, while 15% did not know what type of plan their organization used. A large majority of responses showed that public safety agencies utilized unlimited data plans, regardless of the type of device.

## Devices per Employee

**(Figure 3.13)**



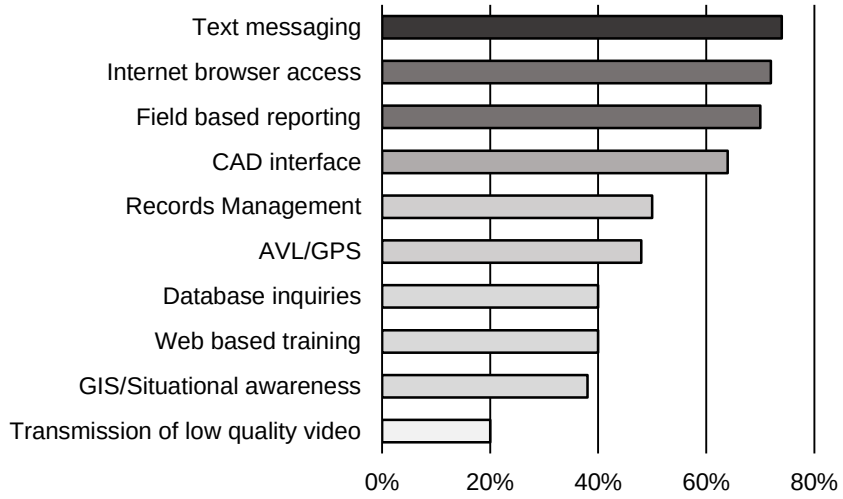

The Survey went on to ask respondents how many devices were allocated to each employee. A majority of respondents (58%) indicated that more than one device was assigned to each employee. Fifteen of these agencies were from the County jurisdictional level (52%), twelve from the Local (41%), and one from the State (3%).

Eight organizations had employees share phones, which equates to less than one device per employee. These agencies were from

smaller municipalities, or large organizations that do not have a traditional first responder mission. The organizations that assigned a single device were from Clay County (40%), Marion (20%), Alachua (10%), Flagler (10%), Putnam (10%), and Nassau (10%). Of these respondents, four represented Fire Services, three represented Utilities, two Public Safety Communications, and two Law Enforcement.

**Mission Critical Applications**

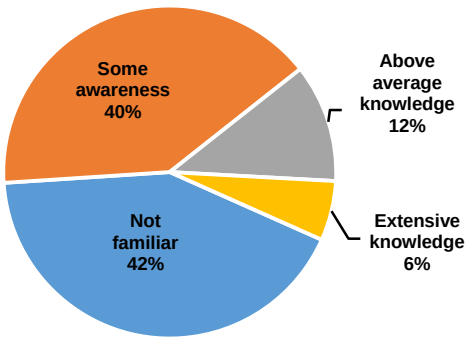
**(Figure 3.14)**




After inquiring why a commercial network was chosen, the Survey then asked how the network was used. Specifically, respondents were queried regarding which mission critical activities rely on mobile data networks. The majority of respondents (74%) identified text messaging as the top mission critical activity that relied on mobile data, followed by internet browsing at 72%. Field based reporting and CAD dispatch followed at 70% and 64%, respectively. Records management (50%), Automatic Vehicle Location and Global Positioning System (AVL/GPS) (48%), and database inquires (40%) were also shown to require mobile data connections. The results shown in Figure 3.14 may be skewed due to the large representation of Law Enforcement and Fire Services. It is important to note that the future applications used by public safety have yet to be determined, but the recent trend indicates an increase in technology such as body worn cameras and applications that increase situational awareness, which utilize larger amounts of data transfers.

**Agency Awareness of FloridaNet**

**(Figure 3.15)**

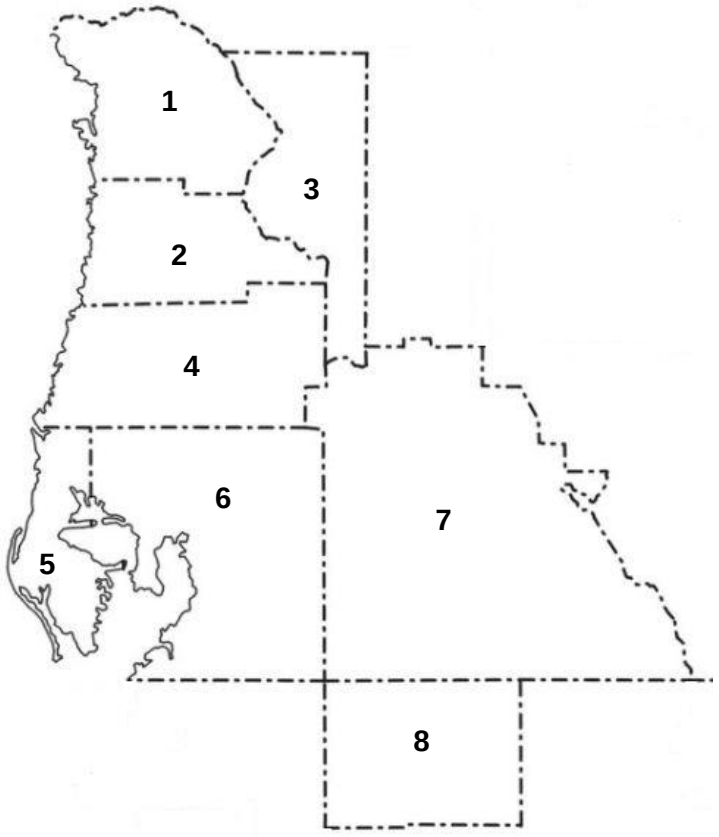



The final question focused upon the respondents' awareness of the FloridaNet program. Understanding if an agency is familiar with FloridaNet will aid in subsequent education and outreach development initiatives. A majority of respondents (58%) indicated that their organization was familiar

with the FloridaNet project, with three (6%) having extensive knowledge, six having above average knowledge (12%), and 21 (40%) having some awareness. Twenty two (42%) respondents indicated that their agency was not familiar with the FloridaNet project at all. One of the goals of FloridaNet is to actively engage and obtain input from all potential public safety users of the NPSBN in order to obtain the best possible network for Florida's local public safety organizations. Based upon these results, FloridaNet must seek to engage those agencies who are not familiar with FloridaNet, and increase participation of those that have some awareness until 100% of agencies across Region 3 have extensive knowledge of the initiative.

*This document was prepared by FloridaNet using funds under award 12-10-S13012 from the National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce (DOC). The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the NTIA, DOC, or FirstNet*

# Region 4




| | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* | | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* |
|---|---|---|---|---|---|---|---|---|---|
| ***1*** | Citrus | 141,236 | 582 | 243 | ***5*** | Pinellas | 929,048 | 274 | 3,347 |
| ***2*** | Hernando | 174,441 | 473 | 366 | ***6*** | Hillsborough | 1,291,578 | 1,020 | 1,205 |
| ***3*** | Sumter | 101,620 | 547 | 6 | ***7*** | Polk | 623,009 | 1,798 | 868 |
| ***4*** | Pasco | 475,502 | 747 | 622 | ***8*** | Hardee | 27,731 | 638 | 43 |

Region 4 consists of eight counties on the Gulf Coast in center of Florida. This geographic breakdown is commensurate with the Florida Department of Law Enforcement's (FDLE) Regional Domestic Security Task Force (RDSTF) regions. The RDSTF geographic structure was chosen due to its familiarity and leadership among the public safety profession throughout the State.

Of the 8 counties in Region 4, five have coastlines along the Gulf of Mexico. The most populous county in Region 4 is Hillsborough (1,291,578), with Pinellas being the most densely populated (3,347/sq mi). Hillsborough County also houses the most populous

city: Tampa with a metro population density of 2,554/sq mi. Region 4 contains a large Sea Port, and major attractions such as sporting venues and amusement parks, which pose increased public safety demands. Hardee County is the least populous (27,731), with Sumter as the least densely populated (6/sq mi). The region contains a large military base that is strategic for both homeland security and worldwide operations. This region can be characterized as mainly suburban, with three major metropolitan statistical area consisting of populations ranging from 141,236 to 2,783,243. Over 300 individual public safety organizations and agencies exist across Region 4.

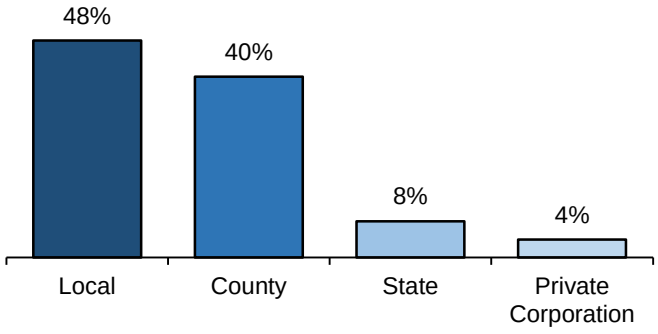
The Department of Homeland Security's Office of Emergency Communication's CASM NextGen mapping and database tool was utilized to obtain a list of public safety agencies. This list was then divided into the seven different RDSTF regions. Each region's list was used to ascertain the technical point of contact for each agency and then request that they complete the Contract Vehicle Survey for their agency. It is important to note that not all agencies at this time had provided a point of contact, which resulted in a smaller sample size.

## Demographics

To gain insight into Region 4, the Contract Vehicle Survey was sent to 110 identified public safety practitioners.

**Jurisdictional Level**

**(Figure 4.1)**



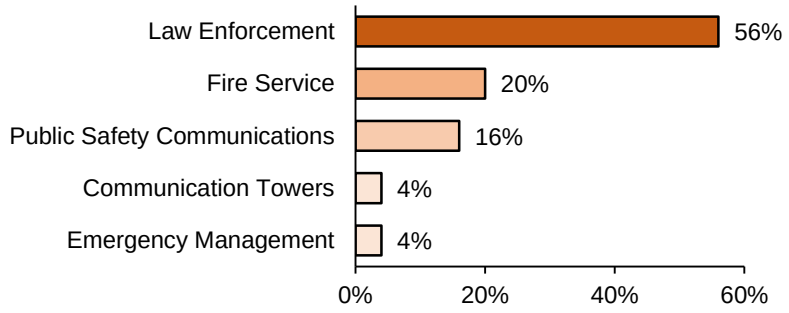

The Survey was completed by 25 respondents, which represents a 23% completion rate. Of these 25 respondents, 12 (48%) were from Local government, 10 from County government (40%), two (8%) from State government, and one (4%) from a Private Corporation. As a majority of respondents were from the local and county level, these results may be skewed from other levels of government.

Of the 25 respondents, six (24%) were from Hillsborough County, six (24%) were from Pinellas County, five (20%) were from Pasco County, four (16%) were from Hernando County, two (8%) were from Polk County, one (4%) was from Citrus County, and one (4%) was from Sumter County. Only Hardee County did not participate. Those counties

that did respond, however, do represent a diverse demographic, which may aid in a valid view of Region 4.

## Discipline

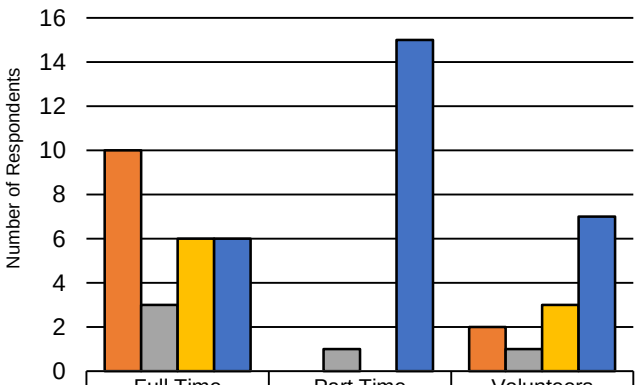
**(Figure 4.2)**




In addition to identifying their organization's jurisdictional level, respondents were also queried on the discipline that best described their agency or division. There were five disciplines represented. The most frequent, with 14 (56%), identified as Law Enforcement, followed by five (20%) identified as Fire Services. Public Safety Communications was represented by four (16%) respondents, with Emergency Management and Communication Towers represented by one respondent, each (4% each). These results may represent a sampling error due to the greater representation of Law Enforcement and the absence of practitioners from the diverse public safety professions.

## Types of Employees

**(Figure 4.3)**



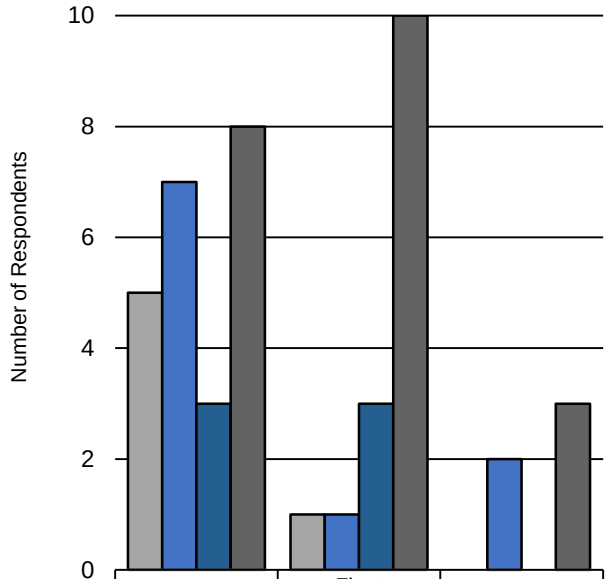

| | Full Time | Part Time | Volunteers |
|---|---|---|---|
| Greater than 500 | 10 | 0 | 2 |
| 201-500 | 3 | 1 | 1 |
| 51-200 | 6 | 0 | 3 |
| 0-50 | 6 | 15 | 7 |

Respondents were asked to identify the number of full time employees, part time employees, and volunteers. Six of the 25 (24%) respondents to this question indicated their agency had 50 or less full time employees. Six (24%) responded that their agency had between 51 and 200 full time employees, while three (1%) had a workforce consisting of 201 to 500 full time employees. Ten (40%) agencies from Region 4 maintained a full time work force of 501 to 1,000 full time employees. Sixteen respondent organizations (64%) employed part time personnel, all but one of which maintained less than 50. More than half (52%) of respondents utilized

the help of volunteers. Of these respondents, seven (54%) maintained less than 50 volunteers, with two (15%) maintained over 500. This data shows that Region 4 is representative of large to small agencies with 52% of agencies employing over 200 employees, and 48% less than 200.

**Vehicle Information**

**(Figure 4.4)**

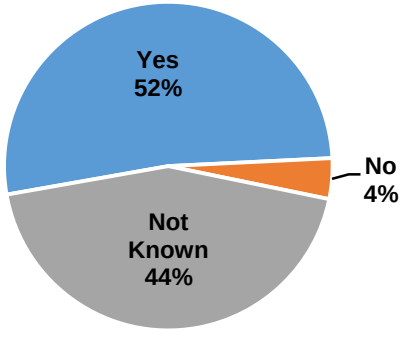



| | Fleet Vehicles that utilize data | Fleet Vehicles that don't utilize data | Personal Vehicles that utilize data |
|---|---|---|---|
| Greater than 500 | 5 | 1 | 0 |
| 201-500 | 7 | 1 | 2 |
| 51-200 | 3 | 3 | 0 |
| 1-50 | 8 | 10 | 3 |

The Survey went on to query information regarding data utilization as it relates to fleet and personal vehicles. A large majority, or 23 of 25, respondents (92%) indicated that their agency's fleet vehicles utilized data, with eight (35%) agencies operating 1 to 50 vehicles, three (13%) maintaining 51 to 200, seven (30%) operating 201 to 500, and five (22%) with greater than 500 vehicles equipped with data capabilities. Fifteen (60%) agencies maintained vehicles not equipped with data, with a majority (67%) operating less than 50. Five (20%) respondents indicated that their agencies provided data capabilities for personal vehicles. These results maintain the Region 4 respondents are from all sized of agencies, as almost an equal amount of agencies operate between less than 200 fleet vehicles, as those that operate more than 200 (48% and 52%, respectively).

**Do You Monitor Data?**

**(Figure 4.5)**




Respondents were asked to identify if their organization utilized a data monitoring product. This question will be important for subsequent FloridaNet data collection efforts. Access to data monitoring files may aid in the establishment of a needed broadband baseline coverage map for the first responders and disaster recovery users operating in

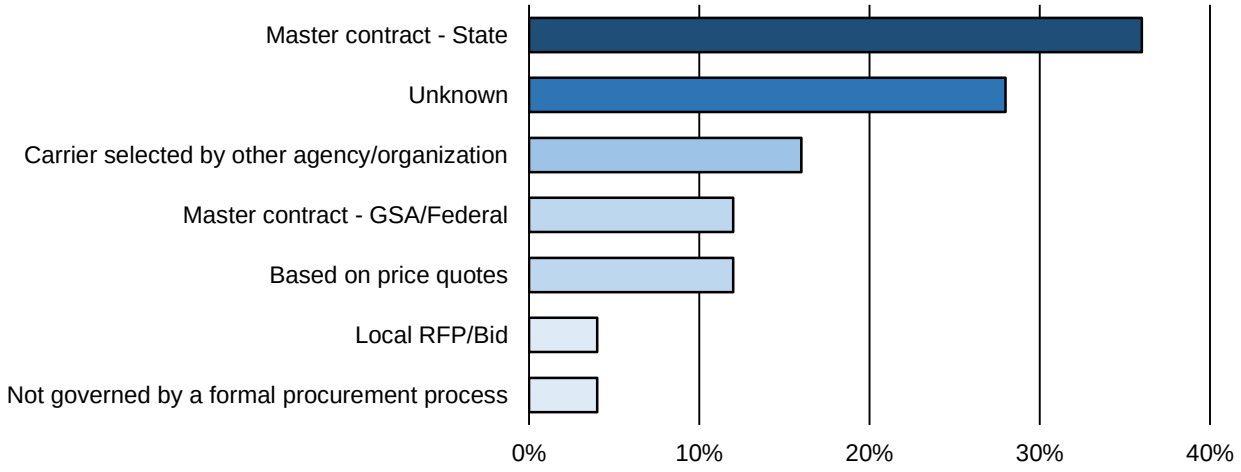
Region 4. A majority of respondents (52%) did monitor data, while 48% either did not operate a data monitoring tool or did not know. Seven (54%) of those agencies that did monitor data were from the Law Enforcement discipline, three (23%) were from Public Safety Communications, and two were from the Fire Services (15%). This representation is heavily skewed towards Law Enforcement's utilization of a data monitoring tool, which may aid in further extrapolation in subsequent data collection efforts. It is a goal of FloridaNet that those 13 agencies that do utilize a data monitoring product share their data so that the local public safety users in Region 4 maintain a strong and vocal presence in the determination of coverage and capacity in the geographic area where they operate their public safety mission.

## Carrier Information

The Survey asked respondents to identify the procurement method of their current carrier(s). Nine respondents (36%) were indicated that their agency used the State's Master Contract, while seven (28%) did not know their agency's method. Four respondents (16%) carriers were selected by another organization, and three respondents, each, utilized a GSA Contract or Price Quotes (12%, each). The remaining respondents either selected the carrier based upon a local RFP (4%) or a non-formalized process (4%).

**Carrier Procurement Method**

**(Figure 4.6)**

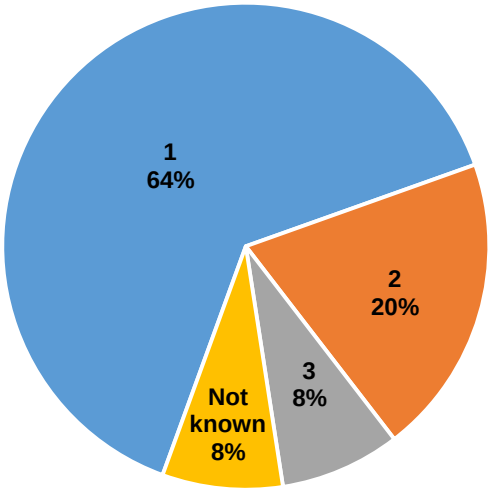



Of the nine agencies that utilized the Master State Contract, six (67%) were from the Local level, and three (33%) from the County level. The private communications tower corporation was not governed by a formal process (4%). Of the 14 Law Enforcement representatives, five (36%) utilized the State's Master Contract, five (36%) did not know their organization's procurement method, two (14%) sought price quotes, one (7%) was

selected by another agency, one (7%) performed an RFP, and one (7%) utilized the Federal Master Contract.

## Number of Required Carriers

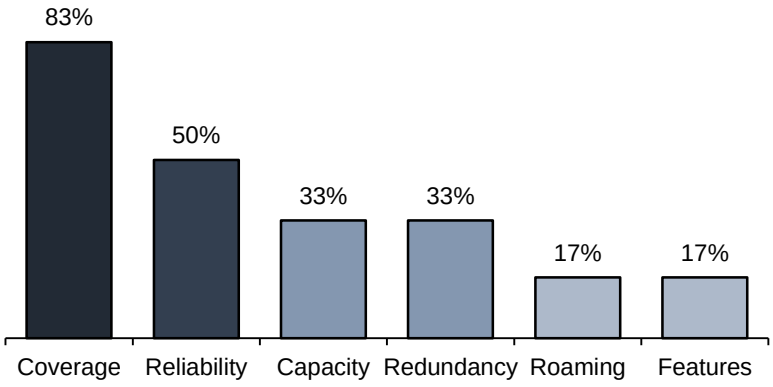
**(Figure 4.7)**




In conjunction with their agency's procurement method, respondents were asked how many carriers were needed to fulfill their public safety mission. Sixteen respondents (64%) answered that their agency required only one commercial provider. These 16 respondents represent all of the levels of jurisdictions and disciplines. Five respondents indicated needing two carriers (20%), along with two needing three (8%). The respondents that indicated a need for multiple carriers were from the State and County levels, along with a private corporation. Half of the agencies requiring multiple carriers were form Law Enforcement, with two from County Fire Services, one from private communications tower corporation, and one from Public Safety Communications. The remaining two respondents (8%) did not know how many carriers their agency or organization required to carryout their public safety mission and were from the Local jurisdictional level.

## Why Do You Require Multiple Carriers?

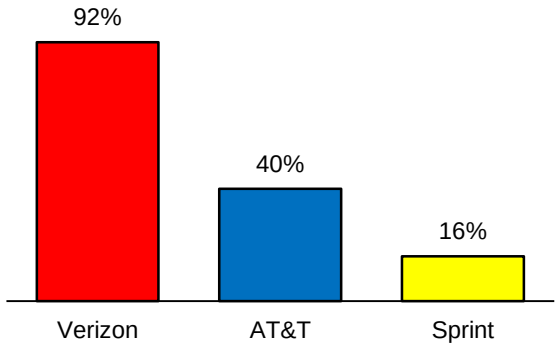
**(Figure 4.8)**




The Survey went on to query why those agencies that use more than one provider require multiple carriers. These four agencies were from the County and State jurisdictional levels with one Law Enforcement and one Emergency Management agency responding from each level. This important follow-up question should reveal the current commercial shortcomings that FirstNet must address for full public safety adoption. The organizations that cited Coverage as a factor were from all demographics, while the two agencies that cited Capacity were from large and densely populated areas, and were form the Fire Services and Public Safety Communications disciplines.

## Commercial Carrier Provider

**(Figure 4.9)**

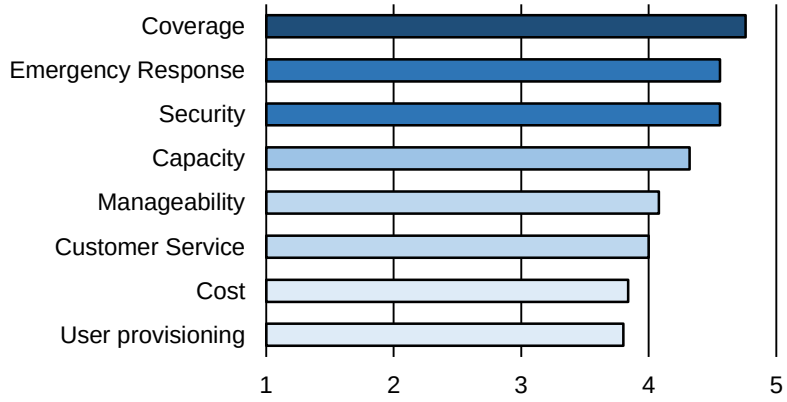



The respondents were then asked to identify which provider they use. Twenty three respondents (92%) indicated that they used Verizon as their primary mobile data provider. Of the nine agencies that utilized the Master State Contract procurement process, eight (89%) used Verizon as their primary carrier, while one (11%) County Law Enforcement agency utilized AT&T. Ten (40%) organizations utilized AT&T. Of those agencies, two (20%) used AT&T as their sole provider, while the remaining eight used it in conjunction with either Verizon (60%), or Sprint and Verizon (20%). The two agencies that utilized all three providers were from Pinellas County (the most densely populated county in Region 4), and cited reliability as a motivating factor for procuring multiple carriers.

No respondents indicated that their agency or organization maintains and utilizes a private data network. This figure may have arose from the fact that there was a 23% response rate.

## Factors for Choosing A Carrier

**(Figure 4.10)**




The Survey asked what factors were the most important in choosing a carrier. The respondents could choose from five options: 1. Not at all important; 2. Slightly important; 3. Moderately important; 4. Very important; and 5. Extremely important.

Figure 4.10 shows the weighted averages of the respondents. Coverage (76% Extremely Important), Emergency Response (64% Extremely Important), Security (64% Extremely Important), and Capacity (44% Extremely Important) were the most important factors in Region 4. The least important factors were User Provisioning (20% Extremely Important) and Cost (20% Extremely Important). The respondents that indicated Cost as Extremely Important were from Local and County Law Enforcement agencies from various counties. All of the factors, however, were ranked as at least moderately important. These results

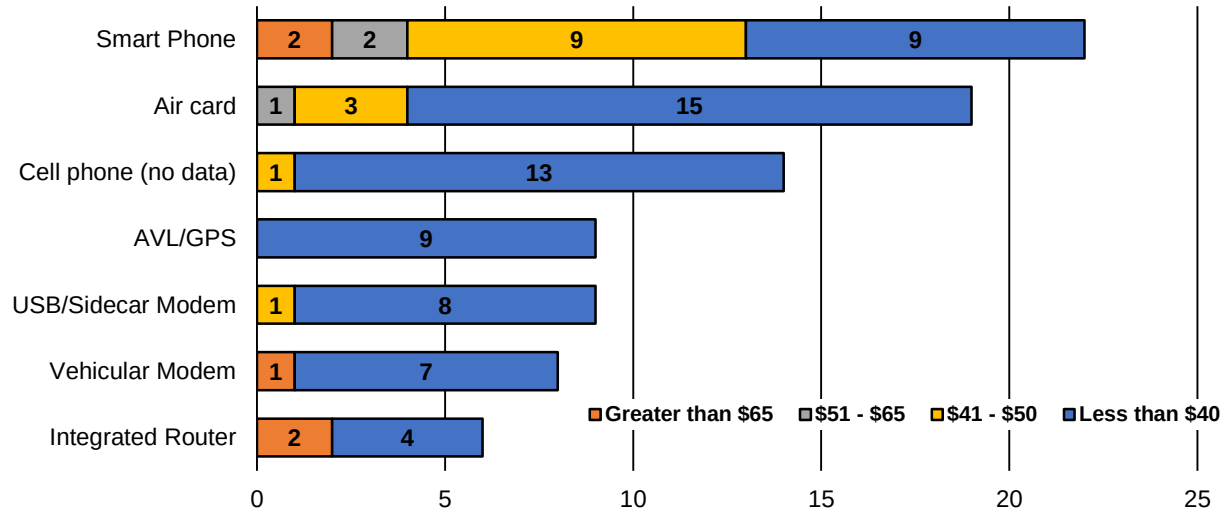
indicate that all of the facets of a mobile data network are important to public safety, and should not be overlooked.

## Devices

Respondents were queried on the types of mobile devices used by their agency, along with the monthly bill for each device. The vast majority of respondents (88%) indicated that their organization utilized Smart Phones with mobile data capabilities. Of those respondents, 81% paid less than $50 per month, 9% paid between $51 and $61, with the remaining 9% paying greater than $65. Fourteen (56%) respondents indicated that their agency utilized cell phones that did not have access to data. The fact that a large majority (88%) of respondent agencies are utilizing data capable smart phones highlights the paradigm shift from strictly voice enabled phones (56% of respondents) to those devices capable of supporting mission critical data applications. Other types of devices being utilized in Region 4 included air cards (76%), dedicated GPS devices (35%), and USB/Sidecar modems (36%).

**Monthly Bill per Mobile Device**

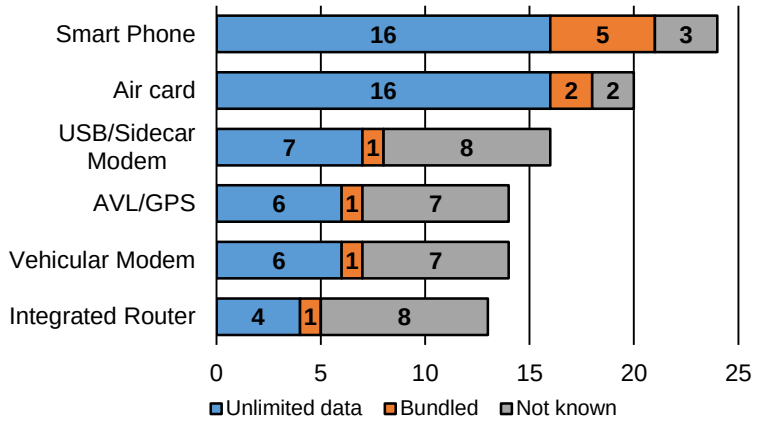
**(Figure 4.11)**




From Figure 4.11, it is clear that a large majority of agencies and organizations paid less than $51 per month per mobile device. Of those organizations that utilized multiple carriers, one paid more than $65 per month per Smart Phone, while the remaining eight paid less than $50 per month. The organization that paid more than $65 per month per Smart Phone was from the private sector. The agencies that paid more than $65 per month per device, across all devices, were from the State, County, and Private jurisdictional levels, representing Fire Services, Law Enforcement, and a communications tower corporation.

## Data Plan per Mobile Device

**(Figure 4.12)**

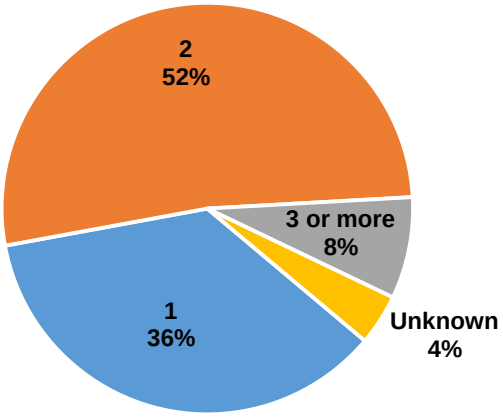



To understand the range of monthly bills, the survey asked the respondents what type of data plan their agency used. The two possible answers were unlimited or bundled data plans. Unlimited data plans allow each data capable device to use as much data as needed, without any financial penalties. Bundled data plans cap each device at a specific amount of data per month. To avoid financial penalties, the bundled data plan creates a shared pool of data limits across the entire agency. This arrangement allows one device that uses a large amount of data to be offset by a device that uses a small amount of data.

Of the respondents that indicated that their agency utilized smart phones, 72% had an unlimited data plan, 23% had a bundled data plan, and 14% did not know what plan their organization utilized. The results for the Air card were similar, with 84% of respondents utilizing unlimited data and 11% utilizing a bundled data plan, and 11% did not know what type of plan their organization used. An overwhelming majority of responses showed that public safety agencies utilize unlimited data plans, regardless of the type of device.

## Devices per Employee

**(Figure 4.13)**



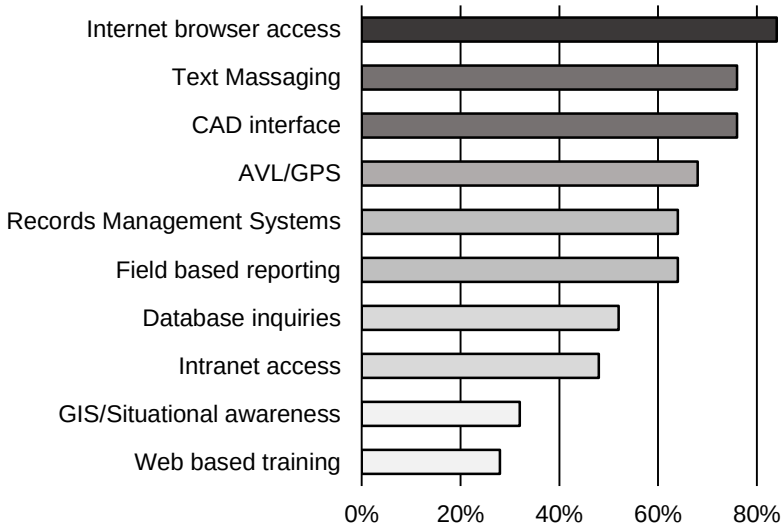

The Survey went on to ask respondents how many devices were allocated to each employee. A majority of respondents (52%) indicated that two devices were assigned to each employee. Seven of these agencies were from the County jurisdictional level (47%), six were from the Local (40%), and one was from the State (7%).

One Local Law Enforcement respondent (4%) did not know how many devices were allocated to each employee. Nine (36%) agencies assigned each employee a single device. Three of the organizations that assigned a single device

were from Hillsborough County (33%), two were from Polk (22%), and one was from Citrus, Hernando, Pinellas, and Pasco Counties, each.

**Mission Critical Applications**

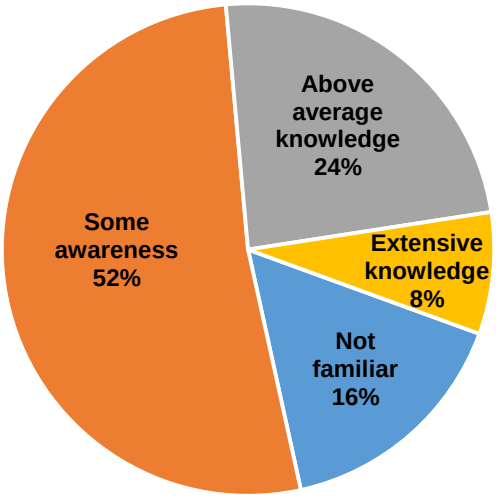
**(Figure 4.14)**




After inquiring why a commercial network was chosen, the Survey then asked how the network was used. Specifically, respondents were queried regarding which mission critical activities rely on mobile data networks. The majority of respondents (84%) identified Internet browser access as the top mission critical activity that relied on mobile data, followed by text messaging and CAD interface at 76%, each. Automatic Vehicle Location and Global Positioning System (AVL/GPS), and records management systems followed at 68% and 64%, respectively. The results shown in Figure 4.14 may be skewed due to the large representation of Law Enforcement. It is important to note that the future applications used by public safety have yet to be determined, but the recent trend indicates an increase in technology such as body worn cameras and applications that increase situational awareness, which utilize larger amounts of data transfers.

**Agency Awareness of FloridaNet**

**(Figure 4.15)**

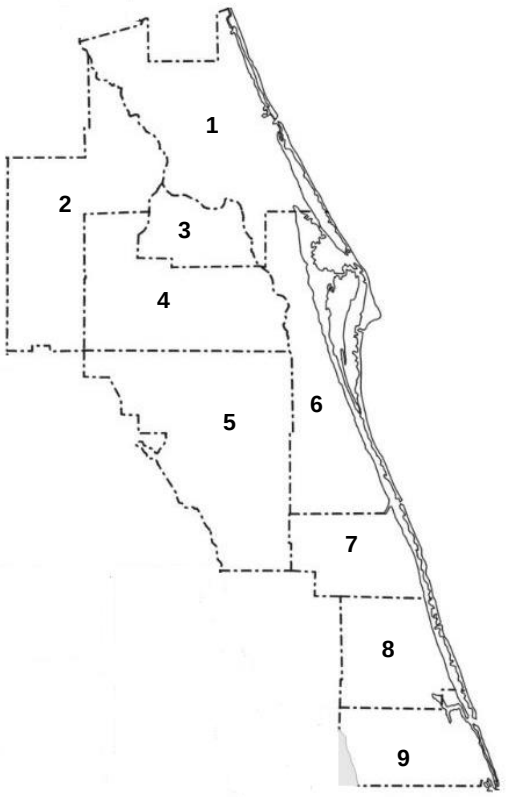



The final question focused upon the respondents' awareness of the FloridaNet program. Understanding if an agency is familiar with FloridaNet will aid in subsequent education and outreach development initiatives. A majority of respondents (74%) indicated that their organization was familiar with the FloridaNet project, with two (8%) having extensive knowledge, six (24%) having above average

knowledge, and 13 (52%) having some awareness. Four (16%) respondents indicated that their agency was not familiar with the FloridaNet project at all. One of the goals of FloridaNet is to actively engage and obtain input from all potential public safety users of the NPSBN in order to obtain the best possible network for Florida's local public safety organizations. Based upon these results, FloridaNet must seek to engage those agencies who are not familiar with FloridaNet, and increase participation of those that have some awareness until 100% of agencies across Region 4 have extensive knowledge of the initiative.

*This document was prepared by FloridaNet using funds under award 12-10-S13012 from the National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce (DOC). The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the NTIA, DOC, or FirstNet*

# Region 5




| | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* | | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* |
|---|---|---|---|---|---|---|---|---|---|
| ***1*** | Volusia | 494,593 | 1,101 | 449 | ***6*** | Brevard | 550,823 | 1,016 | 535 |
| ***2*** | Lake | 308,034 | 938 | 317 | ***7*** | Indian River | 141,994 | 503 | 274 |
| ***3*** | Seminole | 436,041 | 309 | 1,372 | ***8*** | St. Lucie | 286,832 | 572 | 486 |
| ***4*** | Orange | 1,253,001 | 903 | 1,249 | ***9*** | Martin | 151,263 | 543 | 269 |
| ***5*** | Osceola | 298,504 | 1,327 | 203 | | | | | |

Region 5 consists of nine counties on the Atlantic Coast in the center of Florida. This geographic breakdown is commensurate with the Florida Department of Law Enforcement's (FDLE) Regional Domestic Security Task Force (RDSTF) regions. The RDSTF geographic structure was chosen due to its familiarity and leadership among the public safety profession throughout the State.

Of the nine counties in Region 5, five have coastlines along the Atlantic Ocean. The most populous county in Region 5 is Orange (1,253,001), with Seminole being the most densely populated (1,372/sq mi). Orange County also houses the most populous city: Orlando with a population density of 2,327/sq mi. Region 5 contains a large density of

amusement parks and convention centers, which pose increased public safety demands. Indian River County is the least populous (141,994), with Osceola as the least densely populated (203/sq mi). The region contains two large military installments. This region can be characterized as mainly suburban and urban, with four major metropolitan statistical area consisting of populations ranging from 438,095 to 2,134,411. Over 300 individual public safety organizations and agencies exist across Region 5.

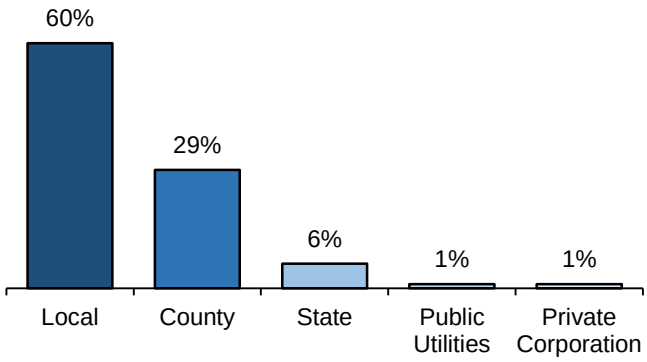
The Department of Homeland Security's Office of Emergency Communication's CASM NextGen mapping and database tool was utilized to obtain a list of public safety agencies. This list was then divided into the seven different RDSTF regions. Each region's list was used to ascertain the technical point of contact for each agency and then request that they complete the Contract Vehicle Survey for their agency. It is important to note that not all agencies at this time had provided a point of contact, which resulted in a smaller sample size.

## Demographics

To gain insight into Region 5, the Contract Vehicle Survey was sent to 192 identified public safety practitioners.

**Jurisdictional Level**

**(Figure 5.1)**

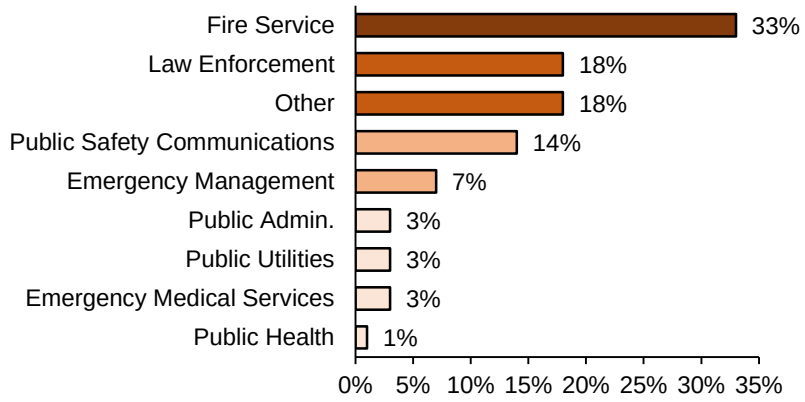



The Survey was completed by 71 respondents, which represents a 58% completion rate. Of these 71 respondents, 43 (38%) were from Local government, 22 from County government (29%), four (6%) from State government, one (1%) from Public Utilities, and one (1%) from a Private Corporation. These results may be skewed due to the large proportion of respondents from the local and county jurisdictions.

Of the 71 respondents, 31 (44%) were from Orange County, 14 (20%) were from Lake County, six (8%) were from Volusia County, five (7%) were from Seminole County, four (6%) were from Martin County, three (4%) were form Brevard County, one (1%) was from Indian River County, and one (1%) was from St. Lucie County. Although all counties from Region 5 were represented, almost two thirds (64%) of respondents were from either Orange (44%) or Lake (20%) Counties, which may skew the Survey results.

## Discipline

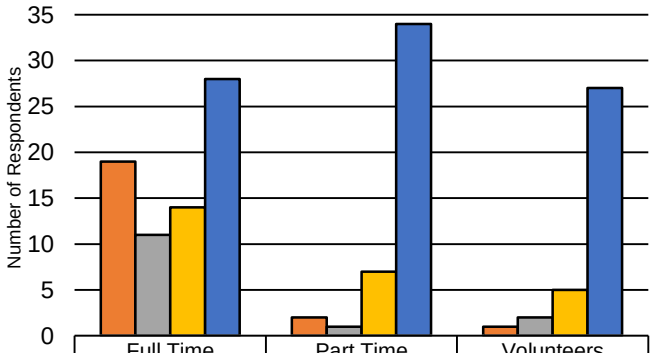
**(Figure 5.2)**




In addition to identifying their organization's jurisdictional level, respondents were also queried on the discipline that best described their agency or division. There were nine disciplines represented. The most frequent, with 24 (33%) respondents, identified as Fire Services, followed by 13 (18%) identified as Law Enforcement. Public Safety Communications was represented by 10 (14%) respondents, with Public Administration and Support Services, Public Utilities, and Emergency Medical Services represented by two respondents, each (3% each). One respondent identified as Public Health (1%), while 13 (18%) identified as Other. Of the respondents that indicated as Other, some were from Information Technologies and K-12 School Districts. These results may represent a sampling error due to the greater representation of Fire Services. The representation of the diverse public safety disciplines, however, may provide valid insights into Region 5.

## Types of Employees

**(Figure 5.3)**



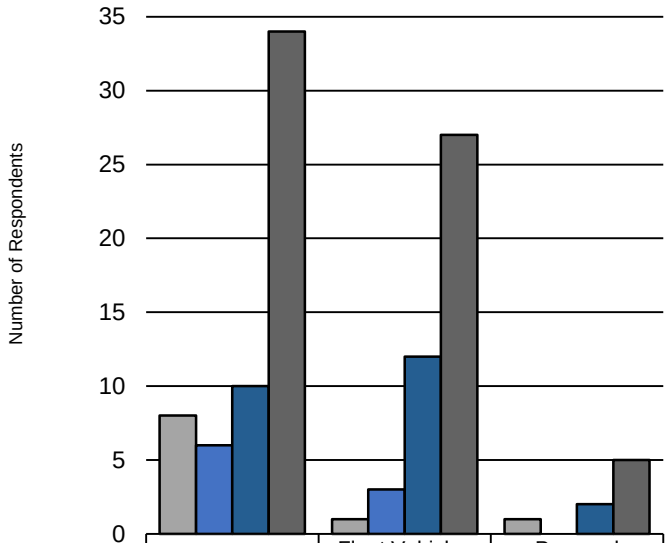

| | Full Time | Part Time | Volunteers |
|---|---|---|---|
| Greater than 500 | 19 | 2 | 1 |
| 201-500 | 11 | 1 | 2 |
| 51-200 | 14 | 7 | 5 |
| 0-50 | 28 | 34 | 27 |

Respondents were asked to identify the number of full time employees, part time employees, and volunteers. Twenty eight of the 71 (39%) respondents to this question indicated that their agency had 50 or less full time employees. Fourteen (20%) responded that their agency had between 51 and 200 full time employees, while 11 (15%) had a workforce consisting of 201 to 500 full time employees. Nineteen (27%) agencies from Region 5 maintained a full time work force of greater than 500 employees. Forty four respondent organizations (62%) employed part time personnel, a majority of which maintained less than 50 (77%). More than half (58%) of

respondents utilized the help of volunteers. Of these respondents, 27 (66%) maintained less than 50 volunteers, and eight (19%) maintained over 50. This data shows that Region 5 is representative of large to small agencies with 42% of agencies employing over 200 employees, and 59% less than 200.

## Vehicle Information

**(Figure 5.4)**

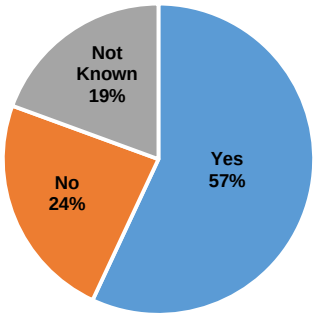



| | Fleet Vehicles that utilize data | Fleet Vehicles that don't utilize data | Personal Vehicles that utilize data |
|---|---|---|---|
| Greater than 500 | 8 | 1 | 1 |
| 201-500 | 6 | 3 | 0 |
| 51-200 | 10 | 12 | 2 |
| 1-50 | 34 | 27 | 5 |

The Survey went on to query information regarding data utilization as it relates to fleet and personal vehicles. A large majority, or 58 of 71, respondents (82%) indicated that their agency's fleet vehicles utilized data, with 34 (59%) agencies operating 1 to 50 vehicles, 10 (19%) maintaining 51 to 200, six (11%) operating 201 to 500, and eight (15%) with greater than 500 vehicles equipped with data capabilities. Forty three (61%) agencies maintained vehicles not equipped with data, with a majority (79%) operating less than 50. Eight (11%) respondents indicated that their agencies provided data capabilities for personal vehicles. These results indicate that while there are many large agencies in Region 5, only (20%) operate more than 200 vehicles equipped with data. This result may be from the diverse public safety disciplines represented that share vehicles among employees.

## Do You Monitor Data?

**(Figure 5.5)**




Respondents were asked to identify if their organization utilized a data monitoring product. This question will be important for subsequent FloridaNet data collection efforts. Access to data monitoring files may aid in the establishment of a needed broadband baseline coverage map for the first responders and disaster recovery users operating in Region 5. A majority of

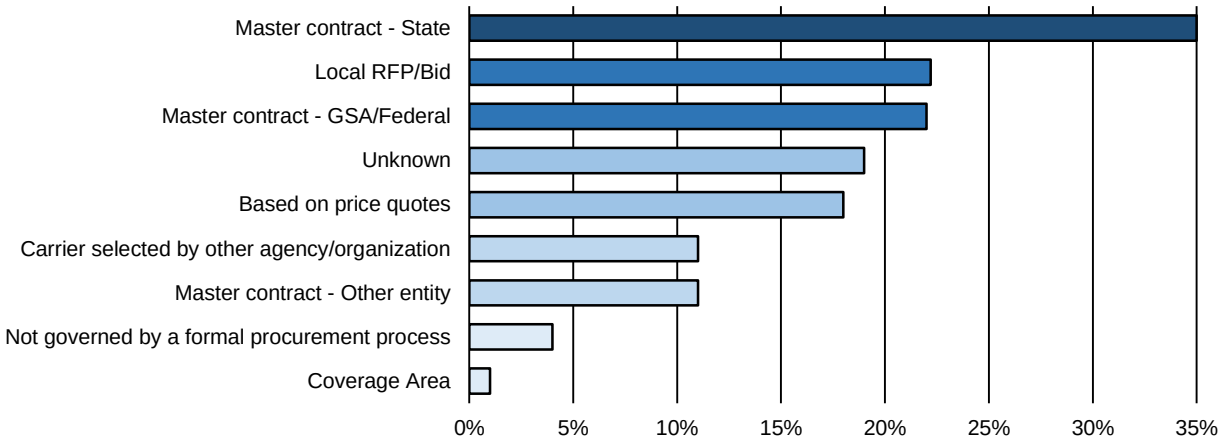
respondents (57%) did monitor data, while 43% either did not operate a data monitoring tool or did not know. Fourteen (34%) of those agencies that did monitor data were from the Fire Services discipline, eight (20%) were from Law Enforcement, and six (15%) were from Public Safety Communications. This representation is heavily skewed towards Fire Services' and Law Enforcement's utilization of a data monitoring tool, which may aid in further extrapolation in subsequent data collection efforts. It is a goal of FloridaNet that those 25 agencies that do utilize a data monitoring product share their data so that the local public safety users in Region 5 maintain a strong and vocal presence in the determination of coverage and capacity in the geographic area where they operate their public safety mission.

## Carrier Information

The Survey asked respondents to identify the procurement method of their current carrier(s). Twenty five respondents (35%) indicated that their agency used the State's Master Contract, while 16 (22%) implemented a Local RFP or Federal Contract, respectively. Fourteen respondents (19%) did not know their organization's procurement method, and 13 (18%) based their selection upon price quotes. The remaining respondents either selected their carriers through another agency (11%), used another entity's contract (11%), implemented a non-formalized method (4%), or based their selection upon Coverage Areas (1%).

**Carrier Procurement Method**

**(Figure 5.6)**

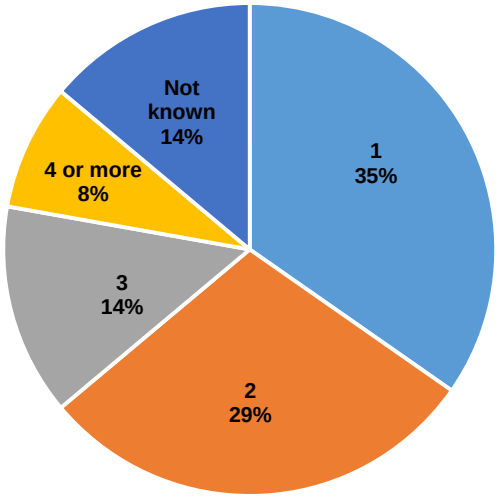



Of the 25 agencies that utilized the Master State Contract, thirteen (52%) were from the Local level, seven (28%) from the County level, and three (12%) from the State level. The private emergency medical services corporation selected their carrier through coverage maps (1%). Of the 24 Fire Services representatives, seven (29%) utilized the State's Master Contract, six (25%) did not know their organization's procurement method, four

(17%) conducted an RFP, three (13%) were selected by another agency, two (8%) were not formalized, and one (4%) utilized the Federal Master Contract.

## Number of Required Carriers

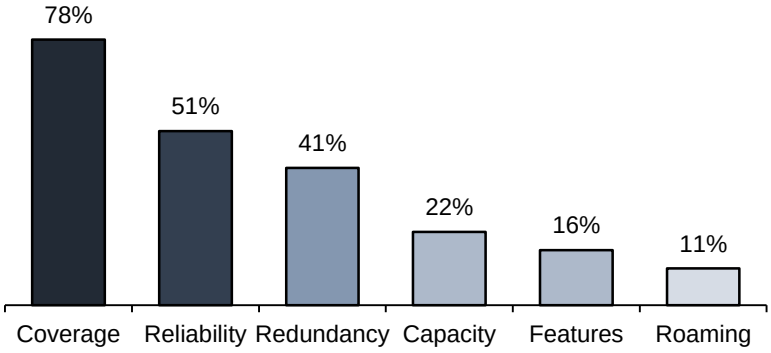
**(Figure 5.7)**




In conjunction with their agency's procurement method, respondents were asked how many carriers were needed to fulfill their public safety mission. Twenty five respondents (35%) answered that their agency required only one commercial provider. These 25 respondents represent all of the levels of jurisdictions and disciplines. Twenty one respondents indicated needing two carriers (29%), 10 needed three (14%), and six needed four or more (8%). The respondents indicating a need for multiple carriers were from the State, County, and Local levels, along with a private corporation. Half of the agencies requiring multiple carriers were from Fire Services (32%) and Law Enforcement (19%), with some Emergency Management and Public Safety Communications organizations represnted. The remaining 10 respondents (14%) did not know how many carriers their agency or organization required to carryout their public safety mission and were primarily from the Local jurisdictional level (60%).

## Why Do You Require Multiple Carriers?

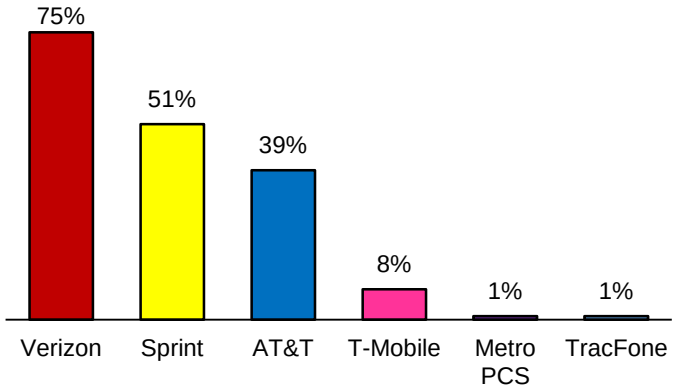
**(Figure 5.8)**




The Survey went on to query why those agencies that used more than one provider required multiple carriers. These 25 agencies were from the State, County and Local jurisdictional levels with over eight disciplines responding at the various levels. This important follow-up question should reveal the current commercial shortcomings that FirstNet must address for full public safety adoption. The organizations that cited Coverage as a factor were from all demographics, while the four of the seven (57%) agencies that cited Capacity were from Orlando, which is a large and densely populated area, and were form the Law Enforcement and Emergency Management disciplines.

## Commercial Carrier Provider

**(Figure 5.9)**

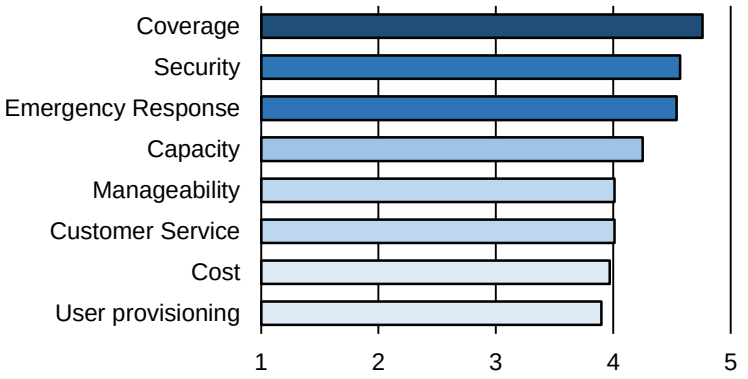



The respondents were then asked to identify which provider they use. Fifty four respondents (75%) indicated that they use Verizon as their primary mobile data provider. Of the 25 agencies that utilized the Master State Contract procurement process, 24 (96%) used Verizon as their primary carrier, while one (4%) County Fire Services agency utilized AT&T. A majority of the 37 respondents utilizing the Sprint network were from Orange County (49%) and represented a range of disciplines. The respondents that utilized T-Mobile (8%), Metro PCS (1%), and TracFone (1%) were from smaller County and Local Law Enforcement and Fire Services organizations.

No respondents indicated that their agency or organization maintains and utilizes a private data network. This figure may have arose from the skewed response of Local jurisdictional agencies and organizations.

## Factors for Choosing A Carrier

**(Figure 5.10)**




The Survey asked what factors were the most important in choosing a carrier. The respondents could choose from five options: 1. Not at all important; 2. Slightly important; 3. Moderately important; 4. Very important; and 5. Extremely important.

Figure 5.10 shows the weighted averages of the respondents. Coverage (77% Extremely Important), Security (67% Extremely Important), Emergency Response (64% Extremely Important), and Capacity (48% Extremely Important) were the most important factors in Region 5. The least important factors were Cost (29% Extremely Important) and User Provisioning (29% Extremely Important). The respondents that indicated Cost as Extremely Important were from State (10%), County (20%), and Local (70%) jurisdictional levels, with large, medium, and small organizations represented. All of the factors, however, were ranked as at least moderately important. These results indicate that all of

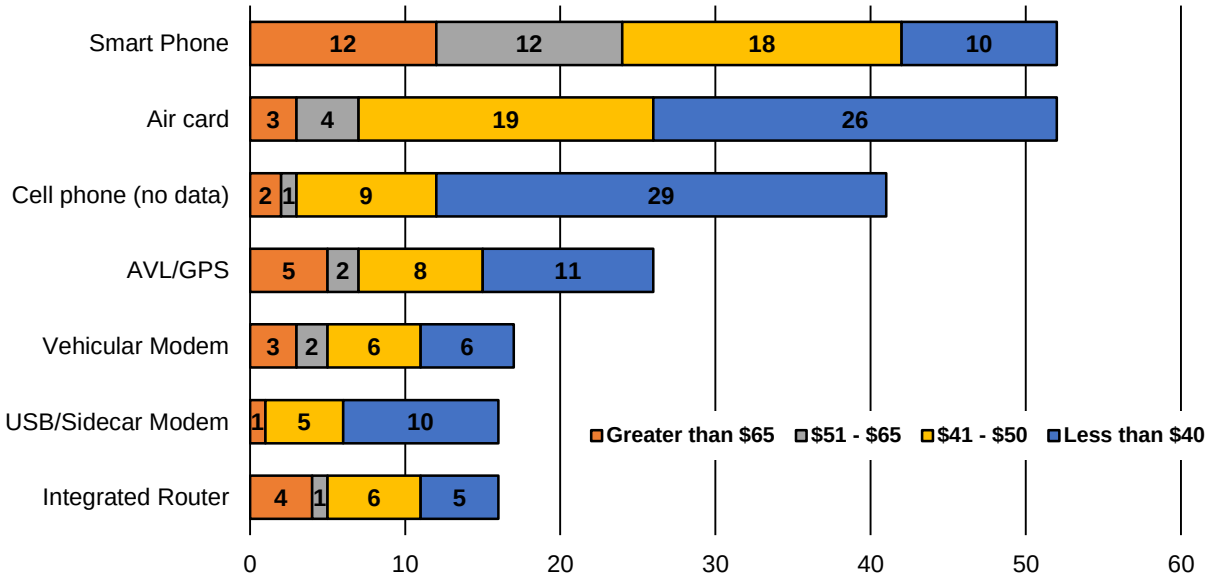
the facets of a mobile data network are important to public safety, and should not be overlooked.

## Devices

Respondents were queried on the types of mobile devices used by their agency, along with the monthly bill for each device. The vast majority of respondents (79%) indicated that their organization utilized Smart Phones with mobile data capabilities. Of those respondents, 54% paid less than $50 per month, 23% paid between $51 and $61, with the remaining 23% paying greater than $65. Forty one (62%) respondents indicated that their agency utilized cell phones that did not have access to data. The fact that a large majority (79%) of respondent agencies are utilizing data capable smart phones highlights the paradigm shift from strictly voice enabled phones (62% of respondents) to those devices capable of supporting mission critical data applications. Other types of devices being utilized in Region 5 included air cards (79%), dedicated GPS devices (39%), and Vehicular modems (26%).

**Monthly Bill per Mobile Device**

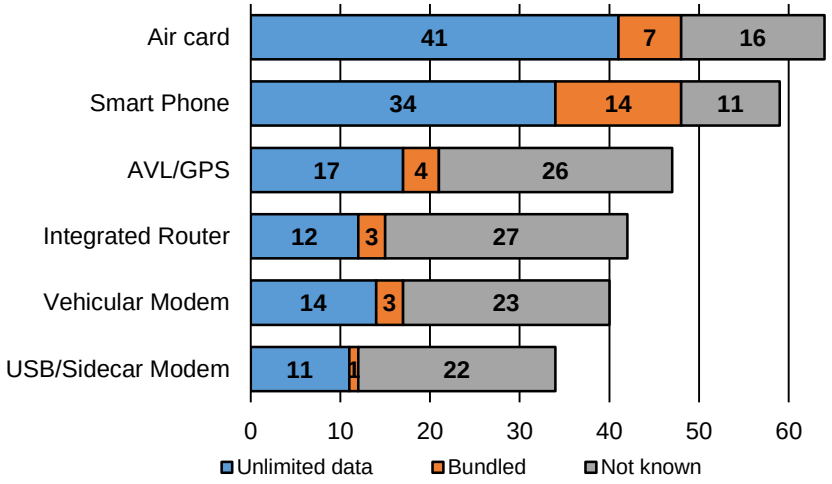
**(Figure 5.11)**




From Figure 5.11, it is clear that a large majority of agencies and organizations paid less than $51 per month per mobile device. Of those organizations that utilized multiple carriers, respondents indicated a wide range of prices paid: from less than $41 per month per device to over $65 per month. There was also representation from the various disciplines found in Region 5, along with diverse demographics, including size and location of the agency.

## Data Plan per Mobile Device

**(Figure 5.12)**

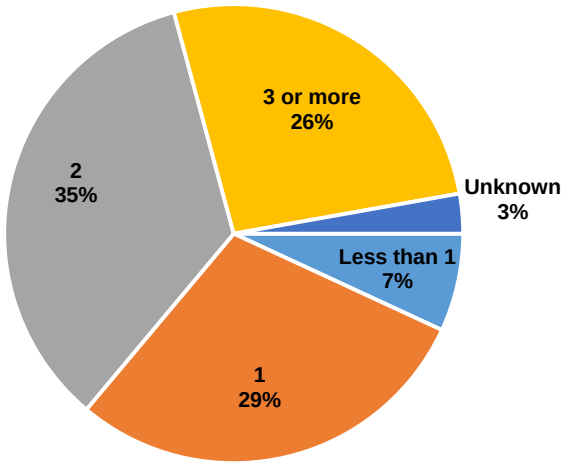



To understand the range of monthly bills, the survey asked the respondents what type of data plan their agency used. The two possible answers were unlimited or bundled data plans. Unlimited data plans allow each data capable device to use as much data as needed, without any financial penalties. Bundled data plans cap each device at a specific amount of data per month. To avoid financial penalties, the bundled data plan creates a shared pool of data limits across the entire agency. This arrangement allows one device that uses a large amount of data to be offset by a device that uses a small amount of data.

Of the respondents that indicated their agency utilizes smart phones, 56% had an unlimited data plan, 24% had a bundled data plan, and 19% did not know what plan their organization utilizes. The results for the Air card were similar, with 64% of respondents utilizing unlimited data, 11% utilizing a bundled data plan, and 17% did not know what type of plan their organization used. An overwhelming majority of responses showed that public safety agencies utilize unlimited data plans, regardless of the type of device.

## Devices per Employee

**(Figure 5.13)**



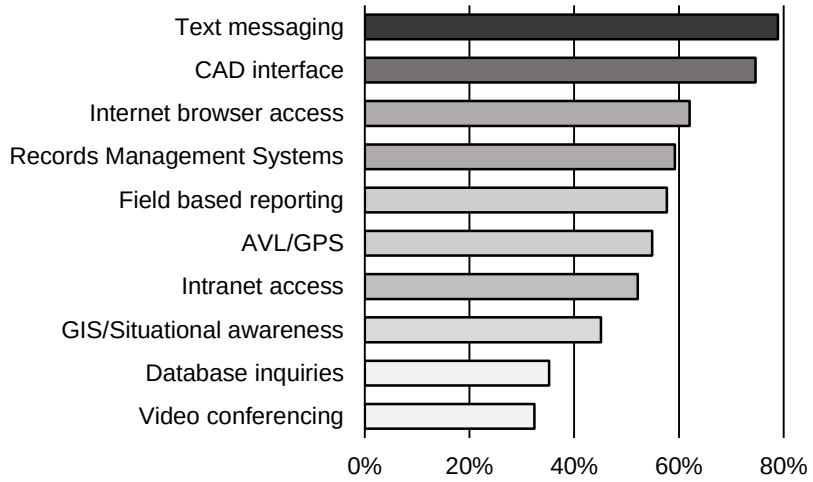

The Survey went on to ask respondents how many devices were allocated to each employee. Twenty five respondents (35%) indicated that two devices were assigned to each employee. Fifteen of these agencies were from the Local jurisdictional level (60%), eight from the County (23%), and one from the State (3%).

One Local Fire Services respondent and one IT agency did not know how many devices were allocated to each employee. Five (7%) agencies had employees share mobile data

devices. Two of these organizations were from County Fire Services, one was a Local Law Enforcement, one was Local Procurement, and one was Local Fire Services. It is clear from Figure 5.13, however, that a majority (64%) of respondents from Region 5 assign each employee multiple mobile data capable devices.

**Mission Critical Applications**

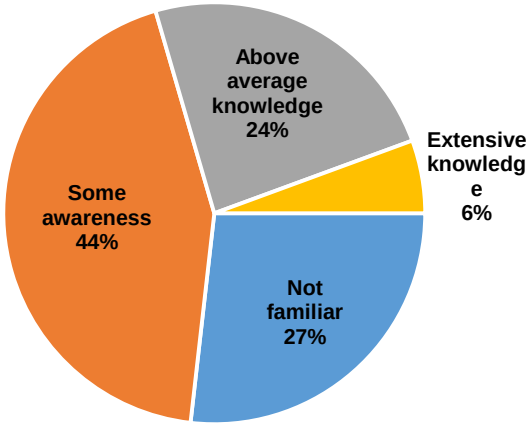
**(Figure 5.14)**




After inquiring why a commercial network was chosen, the Survey then asked how the network was used. Specifically, respondents were queried regarding which mission critical activities rely on mobile data networks. The majority of respondents (79%) identified Text messaging the top mission critical activity that relied on mobile data, followed by CAD interface (75%), and Internet browser access (62%). Records management and field based reporting followed at 59% and 58%, respectively. The results shown in Figure 5.14 may be skewed due to the large representation of Fire Services. It is important to note that the future applications used by public safety have yet to be determined, but the recent trend indicates an increase in technology such as body worn cameras and applications that increase situational awareness, which utilize larger amounts of data transfers.

**Agency Awareness of FloridaNet**

**(Figure 5.15)**




The final question focused upon the respondents' awareness of the FloridaNet program. Understanding if an agency is familiar with FloridaNet will aid in subsequent education and outreach development initiatives. A majority of respondents (73%) indicated that their organization is familiar with the FloridaNet project, with four (6%) having extensive knowledge, 17 (24%) having above average knowledge, and 31

(44%) having some awareness. Nineteen (27%) respondents indicated that their agency was not familiar with the FloridaNet project at all. One of the goals of FloridaNet is to actively engage and obtain input from all potential public safety users of the NPSBN in order to obtain the best possible network for Florida's local public safety organizations. Based upon these results, FloridaNet must seek to engage those agencies who are not familiar with FloridaNet, and increase participation of those that have some awareness until 100% of the agencies across Region 5 have extensive knowledge of the initiative.

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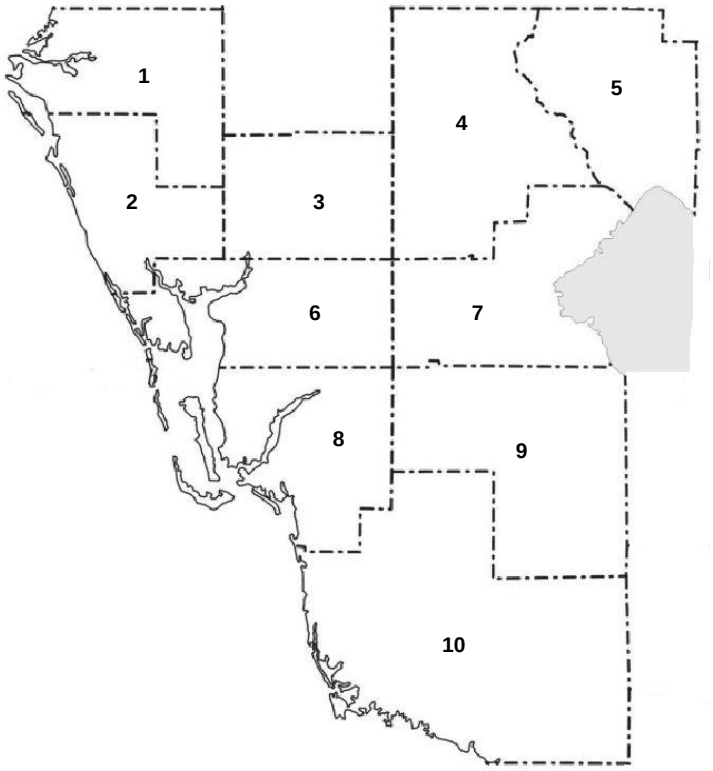
# Region 6




| | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* | | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* |
|---|---|---|---|---|---|---|---|---|---|
| ***1*** | Manatee | 342,106 | 743 | 435 | ***6*** | Charlotte | 164,736 | 680 | 235 |
| ***2*** | Sarasota | 390,429 | 556 | 683 | ***7*** | Glades | 12,884 | 806 | 16 |
| ***3*** | DeSoto | 34,862 | 637 | 55 | ***8*** | Lee | 661,115 | 785 | 769 |
| ***4*** | Highlands | 98,786 | 1,017 | 97 | ***9*** | Hendry | 39,140 | 1,153 | 34 |
| ***5*** | Okeechobee | 39,996 | 769 | 52 | ***10*** | Collier | 339,642 | 1,998 | 161 |

Region 6 consists of ten counties on the Gulf Coast in South Florida. This geographic breakdown is commensurate with the Florida Department of Law Enforcement's (FDLE) Regional Domestic Security Task Force (RDSTF) regions. The RDSTF geographic structure was chosen due to its familiarity and leadership among the public safety profession throughout the State.

Of the ten counties in Region 6, five have coastlines along the Gulf of Mexico. The most populous county in Region 6 is Lee (661,115), with Collier being the most densely populated (1,998/sq mi). Lee County also houses the most populous city: Cape Coral with a population density of 1,479/sq mi. Glades County is both the least populous

(12,884), and the least densely populated (16/sq mi). This region can be characterized as mainly suburban and rural, with one major metropolitan statistical area representing a population of from 618,754. Over 300 individual public safety organizations and agencies exist across Region 6.

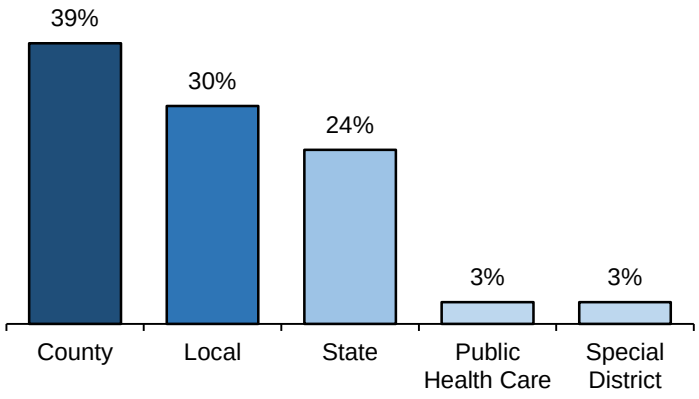
The Department of Homeland Security's Office of Emergency Communication's CASM NextGen mapping and database tool was utilized to obtain a list of public safety agencies. This list was then divided into the seven different RDSTF regions. Each region's list was used to ascertain the technical point of contact for each agency and then request that they complete the Contract Vehicle Survey for their agency. It is important to note that not all agencies at this time had provided a point of contact, which resulted in a smaller sample size.

## Demographics

To gain insight into Region 6, the Contract Vehicle Survey was sent to 79 identified public safety practitioners.

**Jurisdictional Level**

**(Figure 6.1)**

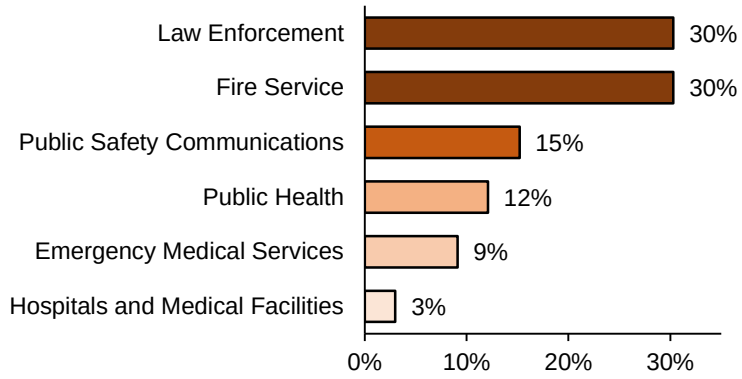



The Survey was completed by 33 respondents, which represents a 42% completion rate. Of these 33 respondents, 13 (36%) were from County government, 10 from Local government (30%), eight (24%) from State government, one (3%) from Public Health Care, and one (3%) from a Special District. This diverse jurisdictional representation in Region 6 may help in the validity of the following results.

Of the 33 respondents, nine (27%) were from Lee County, seven (21%) were from Collier County, three (9%) were from Manatee County, three (9%) were from Sarasota County, three (9%) were from Glades County, two (6%) were from DeSoto County, two (6%) were from Highlands County, two (6%) were from Okeechobee County, and two (2%) were from Charlotte County. Only Hendry County did not participate. Those counties that did respond, however, do represent a diverse demographic, which may aid in a holistic view of Region 6.

## Discipline

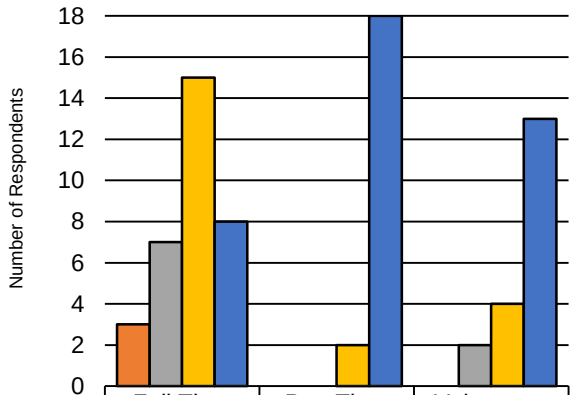
**(Figure 6.2)**




In addition to identifying their organization's jurisdictional level, respondents were also queried on the discipline that best described their agency or division. There were six disciplines represented. Law Enforcement and Fire Services had the largest representation with 10 respondents each (30%, each), followed by five (15%) identified as Public Safety Communications. Public Health was represented by four (12%) respondents, with Emergency Medical Service represented by three (9%). These results may indicate a sampling error due to the greater representations of Law Enforcement and Fire Services (60% cumulative).

## Types of Employees

**(Figure 6.3)**

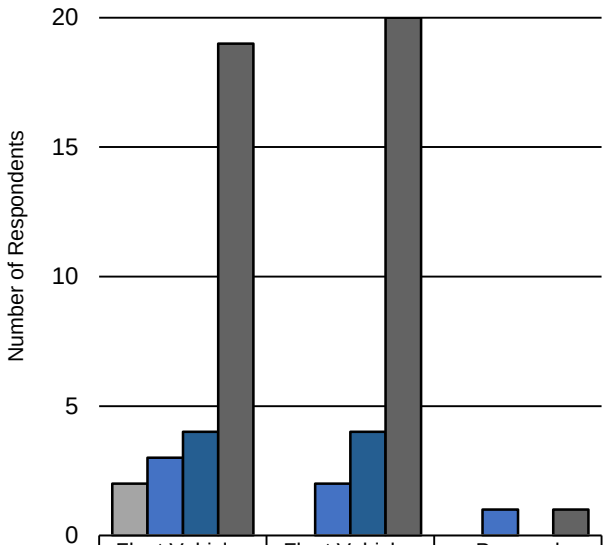



| | Full Time | Part Time | Volunteers |
|---|---|---|---|
| Greater than 500 | 3 | 0 | 0 |
| 201-500 | 7 | 0 | 2 |
| 51-200 | 15 | 2 | 4 |
| 0-50 | 8 | 18 | 13 |

Respondents were asked to identify the number of full time employees, part time employees, and volunteers. Eight of the 33 (24%) respondents to this question indicated that their agency had 50 or less full time employees. Fifteen (45%) responded that their agency had between 51 and 200 full time employees. Seven (21%) had a workforce consisting of 201 to 500 full time employees, while three (9%) had greater than 500. Twenty respondent organizations (61%) employed part time personnel, all but two of which maintained less than 50. More than half (58%) of respondents utilized the help of volunteers. Of these respondents, 13 (68%) maintained less than 50 volunteers, and six (32%) maintained over 50. This data shows that Region 6 is representative of mainly moderately sized agencies with 30% of agencies employing over 200 employees, and 70% less than 200.

## Vehicle Information

**(Figure 6.4)**

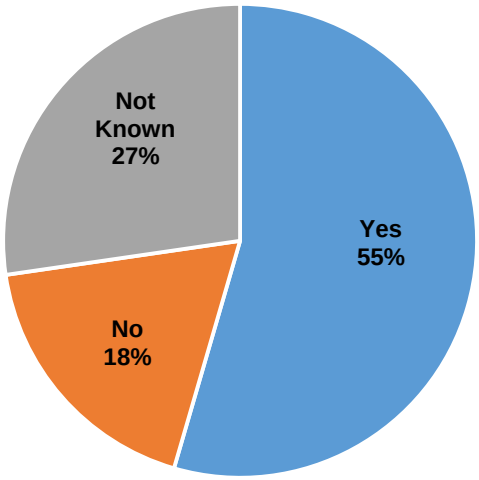



| | Fleet Vehicles that utilize data | Fleet Vehicles that don't utilize data | Personal Vehicles that utilize data |
|---|---|---|---|
| Greater than 500 | 2 | 0 | 0 |
| 201-500 | 3 | 2 | 1 |
| 51-200 | 4 | 4 | 0 |
| 1-50 | 19 | 20 | 1 |

The Survey went on to query information regarding data utilization as it relates to fleet and personal vehicles. A large majority, or 28 of 33, respondents (85%) indicated that their agency's fleet vehicles utilized data, with 19 (68%) agencies operating 1 to 50 vehicles, four (14%) maintaining 51 to 200, three (11%) operating 201 to 500, and two (7%) with greater than 500 vehicles equipped with data capabilities. Twenty six (79%) agencies maintained vehicles not equipped with data, with a majority (77%) operating less than 50. Two (6%) respondents indicated that their agencies provided data capabilities for personal vehicles. These results maintain that Region 6 respondents are from moderately sized organizations, as almost a majority (73%) of agencies operate less than 200 vehicles equipped with data.

## Do You Monitor Data?

**(Figure 6.5)**




Respondents were asked to identify if their organization utilized a data monitoring product. This question will be important for subsequent FloridaNet data collection efforts. Access to data monitoring files may aid in the establishment of a needed broadband baseline coverage map for the first responders and disaster recovery users operating in Region 6. A majority of respondents (55%) did monitor data, while 45% either did not operate a data monitoring tool (18%) or did not know (27%). Six (33%) of those agencies that did monitor data were from the Law Enforcement discipline, another six (33%) were from Fire Services, four (22%) were from Public Safety

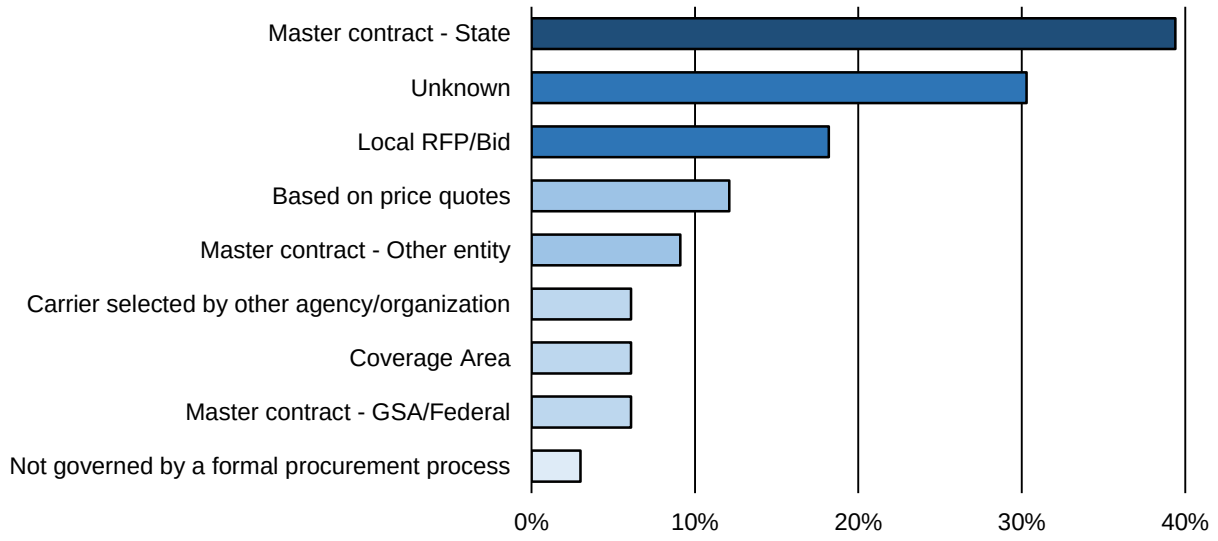
Communications, and two respondents from Emergency Medical Services (6%). This skewed representation of Law Enforcement's and Fire Service's utilization of a data monitoring tool is in line with the greater representation of these two disciplines. It is a goal of FloridaNet that those 18 agencies that do utilize a data monitoring product share their data so that the local public safety users in Region 6 maintain a strong and vocal presence in the determination of coverage and capacity in the geographic area where they operate their public safety mission.

## Carrier Information

The Survey asked respondents to identify the procurement method of their current carrier(s). Thirteen respondents (39%) indicated that their agency used the State's Master Contract, while ten (30%) did not know their agency's method. Six respondents (18%) utilized an RFP process to select the carrier, and four (12%) based their selection on price quotes. Three (9%) organizations utilized another entity's master contract, and two (6%) agencies based their decision upon a carrier's coverage area. The remaining agencies used a carrier selected by another organization (6%), used the Federal contract (6%), or their process was not formalized (3%).

**Carrier Procurement Method**

**(Figure 6.6)**

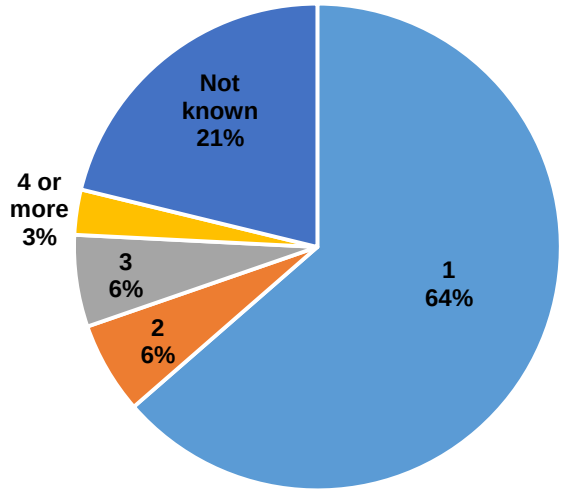



Of the 13 agencies that utilized the Master State Contract, five (38%) were from the Local level, five (38%) from the County level, two (16%) from the State level, and one (8%) from a special district. Two rural County Law Enforcement agencies utilized Coverage Area to determine their carrier. Of the 10 Fire Services representatives, five (50%) utilized the

State's Master Contract, three (30%) performed an RFP, two (20%) did not know their agency's procurement process, and one (10%) was selected by another organization.

## Number of Required Carriers

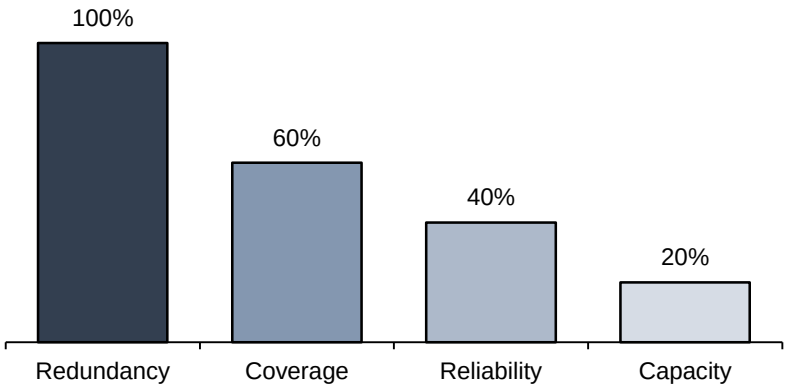
**(Figure 6.7)**




In conjunction with their agency's procurement method, respondents were asked how many carriers were needed to fulfill their public safety mission. Twenty one respondents (64%) answered that their agency required only one commercial provider. These 21 respondents represent all of the levels of jurisdictions and disciplines. The two (6%) respondents that indicated needing two carriers were from a State Public Health and County Emergency Medical Services. The two (6%) agenices needing three carriers were from Local Fire Services and County Public Safety Communications. The one respondent that utilized four or more carriers was a County Public Safety Communications agency. The remaining seven respondents (21%) did not know how many carriers their agency or organization required to carryout their public safety mission and were from all three levels of jurisdiction.

## Why Do You Require Multiple Carriers?

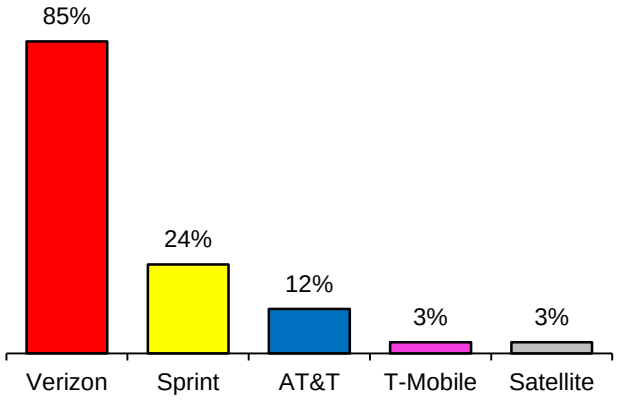
**(Figure 6.8)**




The Survey went on to query why those agencies that use more than one provider require multiple carriers. This important follow-up question should reveal the current commercial shortcomings that FirstNet must address for full public safety adoption. All five of the organizations requiring multiple carriers indicated Redundancy as a major factor. Coverage was cited by two rural agencies and one suburban organization. The organization that cited Capacity as a factor was from a County Public Safety Communications organization from a densely populated county.

## Commercial Carrier Provider

**(Figure 6.9)**

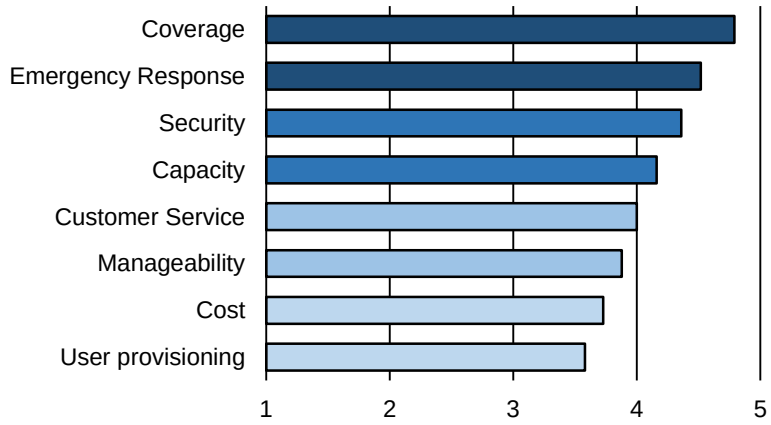



The respondents were then asked to identify which provider they use. Twenty eight respondents (85%) indicated that they used Verizon as their primary mobile data provider. Of the 13 agencies that utilized the Master State Contract procurement process, all (100%) used Verizon as their primary carrier, while two (15%) organizations used Sprint to supplement Verizon. Eight (24%) organizations utilized Sprint, with only four of those agencies relying solely Sprint (50%). One (3%) County Public Safety Communications agency in a densely populated county utilized T-Mobile in conjunction with AT&T, Sprint, and Verizon. A County Public Safety Communications agency in Collier County, the highest population density of Region 6, utilized Satellite communications to supplement their carrier networks.

No respondents indicated that their agency or organization maintains and utilizes a private data network. This result may have arisen from a sampling error.

## Factors for Choosing A Carrier

**(Figure 6.10)**




The Survey asked what factors were the most important in choosing a carrier. The respondents could choose from five options: 1. Not at all important; 2. Slightly important; 3. Moderately important; 4. Very important; and 5. Extremely important.

Figure 6.10 shows the weighted averages of the respondents. Coverage (82% Extremely Important), Emergency Response (61% Extremely Important), Security (58% Extremely Important), and Capacity (38% Extremely Important) were the most important factors in Region 6. The least important factors were User Provisioning (9% Extremely Important) and Cost (27% Extremely Important). The respondents that indicated Cost as Extremely Important represented all disciplines across all jurisdictional levels. All of the factors,

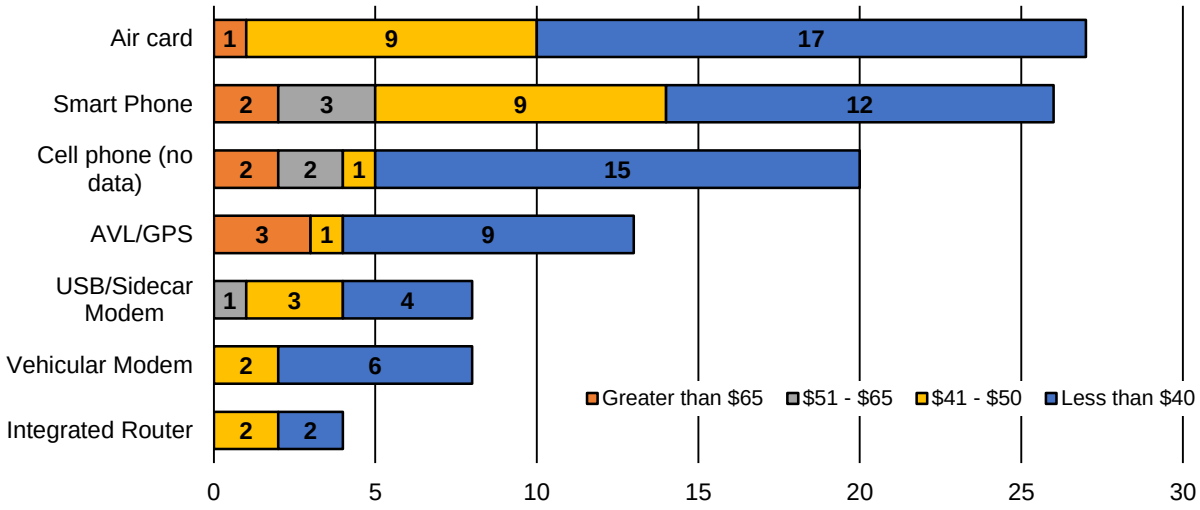
however, were ranked as at least moderately important. These results indicate that all of the facets of a mobile data network are important to public safety, and should not be overlooked.

## Devices

Respondents were queried on the types of mobile devices used by their agency, along with the monthly bill for each device. The vast majority of respondents (84%) indicated that their organization utilized Smart Phones with mobile data capabilities. Of those respondents, 81% paid less than $50 per month, 12% paid between $51 and $61, with the remaining 8% paying greater than $65. Twenty (65%) respondents indicated that their agency utilized cell phones that did not have access to data. The fact that a large majority (81%) of respondent agencies are utilizing data capable smart phones highlights the paradigm shift from strictly voice enabled phones (65% of respondents) to those devices capable of supporting mission critical data applications. Other types of devices being utilized in Region 6 included air cards (87%), dedicated GPS devices (42%), and USB/Sidecar modems (26%).

**Monthly Bill per Mobile Device**

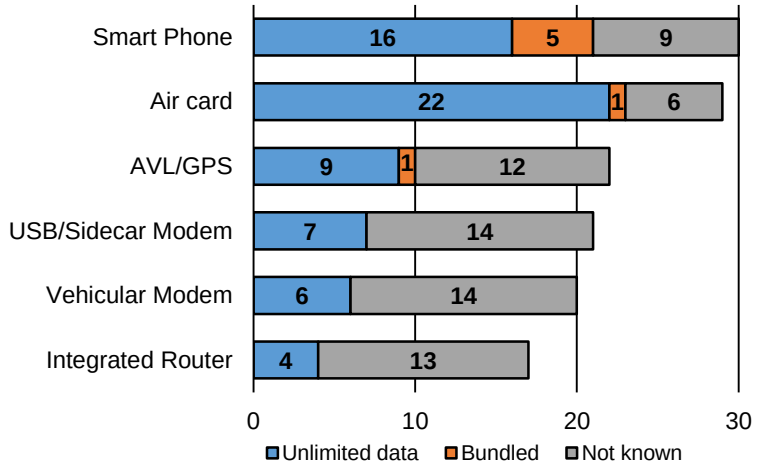
**(Figure 6.11)**




From Figure 6.11, it is clear that a large majority of agencies and organizations paid less than $51 per month per mobile device. All of those organizations that utilized multiple carriers paid less than $50 per month per Smart Phone. The agencies that paid more than $51 per month per device, across all devices, were from the State, County, and Local levels, representing Fire Services, Law Enforcement, Public Health, and Public Safety Communications.

## Data Plan per Mobile Device

**(Figure 6.12)**

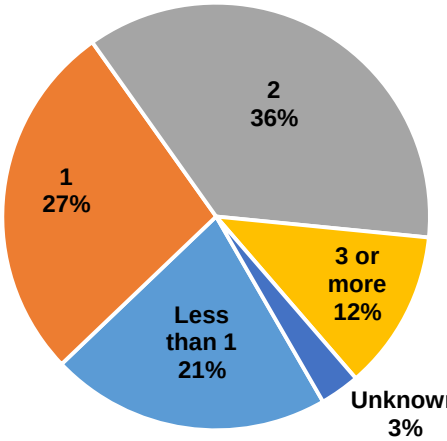



To understand the range of monthly bills, the survey asked the respondents what type of data plan their agency used. The two possible answers were unlimited or bundled data plans. Unlimited data plans allow each data capable device to use as much data as needed, without any financial penalties. Bundled data plans cap each device at a specific amount of data per month. To avoid financial penalties, the bundled data plan creates a shared pool of data limits across the entire agency. This arrangement allows one device that uses a large amount of data to be offset by a device that uses a small amount of data.

Of the respondents that indicated their agency utilized smart phones, 53% had an unlimited data plan, 17% had a bundled data plan, and 30% did not know what plan their organization utilizes. The results for the Air card were similar, with 76% of respondents utilizing unlimited data and 3% utilizing a bundled data plan, and 38% did not know what type of plan their organization used. An overwhelming majority of responses showed that public safety agencies utilize unlimited data plans, regardless of the type of device.

## Devices per Employee

**(Figure 6.13)**



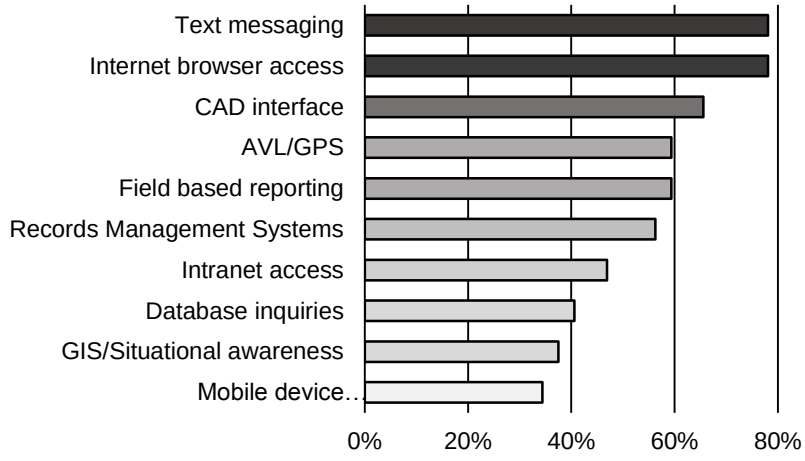

The Survey went on to ask respondents how many devices were allocated to each employee. A large portion of respondents (36%) indicated that two devices are assigned to each employee. Seven of these agencies were from the County jurisdictional level (58%), four from the Local (33%), and one from the State (8%).

One County Public Safety Communications (3%) did not know how many devices were allocated to each employee. Three (12%) agencies assigned three or more devices to each employee: one State Public Health, one

Hospital Facility, and one Local Fire Service. Almost half (48%) of respondents provided their employees with one mobile data equipped device or less (17% and 21%, respectively). All of the agencies from the two of the predominantly rural counties fall into this category, along with representation from a few smaller agencies within the densely populated counties.

## Mission Critical Applications

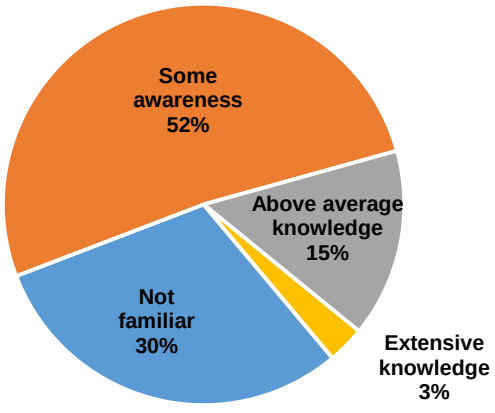
**(Figure 6.14)**




After inquiring why a commercial network was chosen, the Survey then asked how the network was used. Specifically, respondents were queried regarding which mission critical activities rely on mobile data networks. The majority of respondents (78%) identified Text messaging and Internet browser access as the top mission critical activities that relied on mobile data, followed by CAD interface at 66%. Automatic Vehicle Location and Global Positioning System (AVL/GPS) and Field based reporting tied at 59% each, with Records Management Systems following at 56%. The results shown in Figure 6.14 may be skewed due to the large representation of Fire Services and Law Enforcement. It is important to note that the future applications used by public safety have yet to be determined, but the recent trend indicates an increase in technology such as body worn cameras and applications that increase situational awareness, which utilize larger amounts of data transfers.

## Agency Awareness of FloridaNet

**(Figure 6.15)**

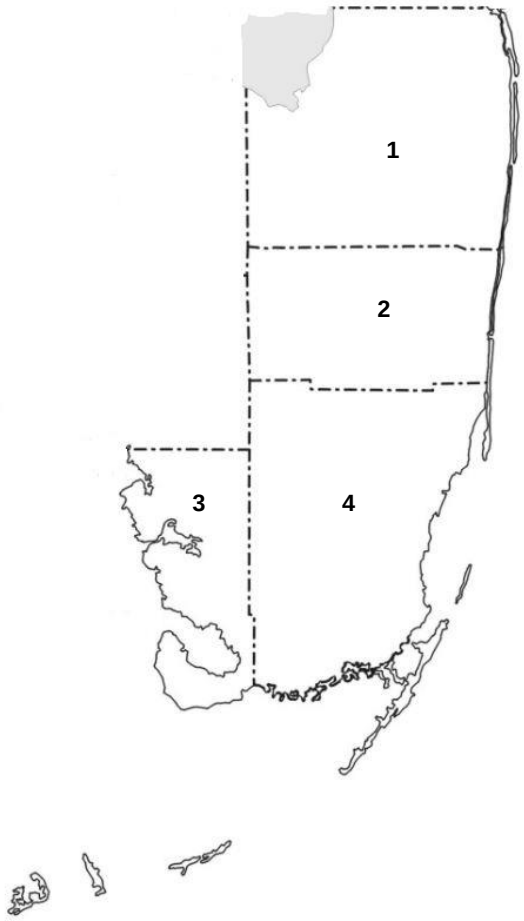



The final question focused upon the respondents' awareness of the FloridaNet program. Understanding if an agency is familiar with FloridaNet will aid in subsequent education and outreach development initiatives. A majority of respondents (70%) indicated that their organization was familiar with the FloridaNet project, with one (3%) having extensive knowledge, five (15%) having above average

knowledge, and 17 (52%) having some awareness. Ten (30%) respondents indicated that their agency was not familiar with the FloridaNet project at all. One of the goals of FloridaNet is to actively engage and obtain input from all potential public safety users of the NPSBN in order to obtain the best possible network for Florida's local public safety organizations. Based upon these results, FloridaNet must seek to engage those agencies who are not familiar with FloridaNet, and increase participation of those that have some awareness until 100% of the agencies across Region 6 have extensive knowledge of the initiative.

*This document was prepared by FloridaNet using funds under award 12-10-S13012 from the National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce (DOC). The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the NTIA, DOC, or FirstNet*

# Region 7




| | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* | | *County* | *Population* | *Land Mass (sq mi)* | *Population Density (per sq mi)* |
|---|---|---|---|---|---|---|---|---|---|
| ***1*** | Palm Beach | 1,1372,171 | 1,970 | 670 | ***3*** | Monroe | 73,090 | 983 | 74 |
| ***2*** | Broward | 1,838,844 | 1,210 | 1,445 | ***4*** | Miami-Dade | 2,662,874 | 1,898 | 1,379 |

Region 7 consists of four counties on the Southern tip of Florida. This geographic breakdown is commensurate with the Florida Department of Law Enforcement's (FDLE) Regional Domestic Security Task Force (RDSTF) regions. The RDSTF geographic structure was chosen due to its familiarity and leadership among the public safety profession throughout the State.

All four counties in Region 7 have significant coastlines along the Gulf of Mexico and Atlantic Ocean. The most populous county in Region 7 is Miami-Dade (2,662,874), with Broward being the most densely populated (1,445/sq mi). Miami-Dade County also

houses the most populous city: Miami with a population density of 11,136/sq mi. Region 7 contains a large Sea Port, and major attractions such as sporting venues and the Florida Keys, which pose increased public safety demands. Additionally, two major military instillations exist in Region 7. Monroe County is both the least populous (73,090), and the least densely populated (74/sq mi). This region can be characterized as urban, suburban, and rural, with one major metropolitan statistical area representing a population of 5,564,635. Over 300 individual public safety organizations and agencies exist across Region 7.

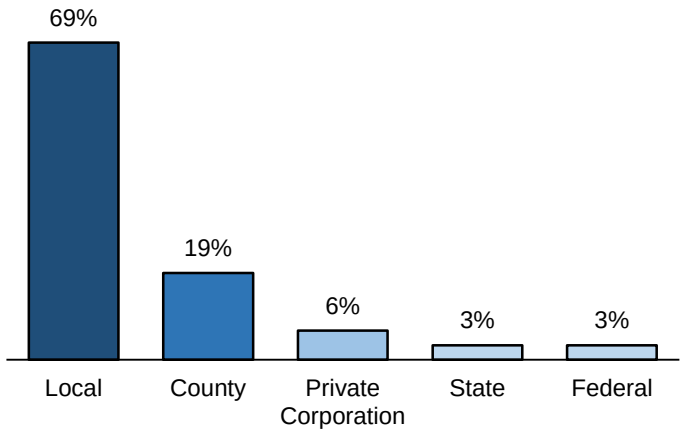
The Department of Homeland Security's Office of Emergency Communication's CASM NextGen mapping and database tool was utilized to obtain a list of public safety agencies. This list was then divided into the seven different RDSTF regions. Each region's list was used to ascertain the technical point of contact for each agency and then request that they complete the Contract Vehicle Survey for their agency. It is important to note that not all agencies at this time had provided a point of contact, which resulted in a smaller sample size.

## Demographics

To gain insight into Region 7, the Contract Vehicle Survey was sent to 94 identified public safety practitioners.

**Jurisdictional Level**

**(Figure 7.1)**

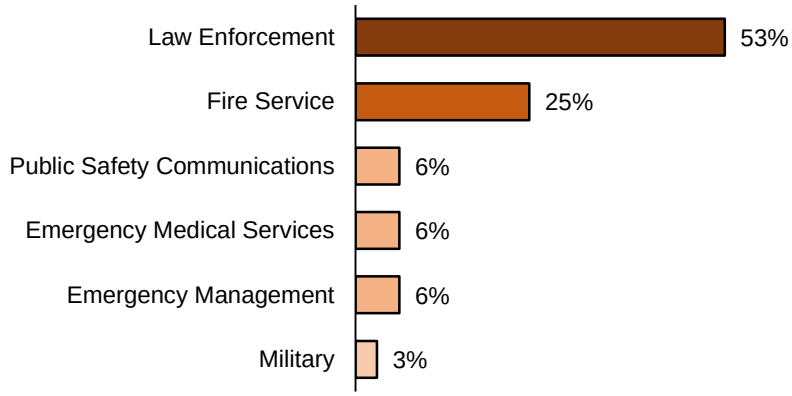



The Survey was completed by 32 respondents, which represents a 34% completion rate. Of these 32 respondents, 22 (69%) were from Local government, 6 from County government (19%), two (6%) from Private Corporations, one (3%) from the State government, and one from the Federal government (3%). The greater representation from the Local level may skew the results.

Of the 32 respondents, 12 (38%) were from Broward County, ten (31%) were from Palm Beach County, eight (25%) were from Miami-Dade County, and two (6%) were from Monroe County.

## Discipline

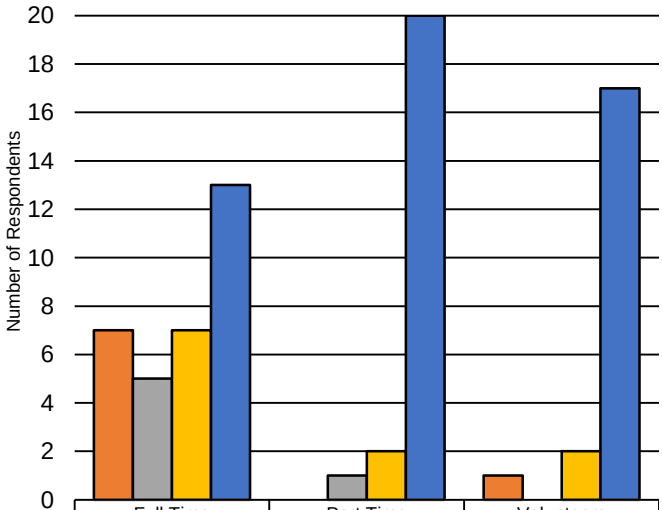
**(Figure 7.2)**




In addition to identifying their organization's jurisdictional level, respondents were also queried on the discipline that best described their agency or division. There were five disciplines represented. Law Enforcement had the largest representation with 17 (53%) respondents, followed by eight (25%) identified as Fire Services. Public Safety Communications, Emergency Management, and Emergency Medical Services were all represented by 2 respondents (6%), each. Military had a single respondent (3%). These results may represent a sampling error due to the larger representation of Law Enforcement (53%).

## Types of Employees

**(Figure 7.3)**



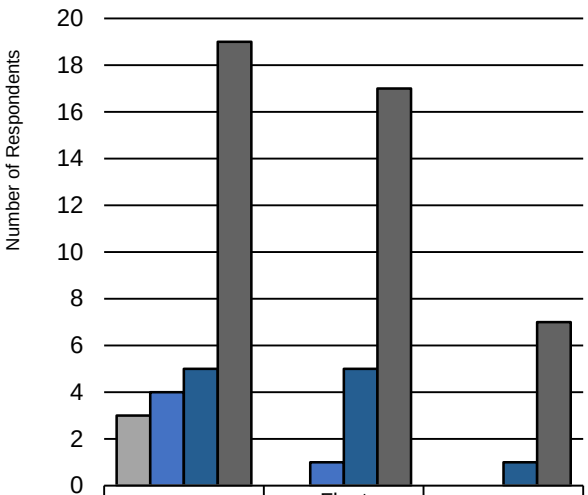

| | Full Time | Part Time | Volunteers |
|---|---|---|---|
| Greater than 500 | 7 | 0 | 1 |
| 201-500 | 5 | 1 | 0 |
| 51-200 | 7 | 2 | 2 |
| 0-50 | 13 | 20 | 17 |

Respondents were asked to identify the number of full time employees, part time employees, and volunteers. Thirteen of the 32 (40%) respondents to this question indicated that their agency had 50 or less full time employees. Seven (22%) responded that their agency had between 51 and 200 full time employees. Five (16%) had a workforce consisting of 201 to 500 full time employees, while seven (22%) had greater than 500. Twenty three respondent organizations (72%) employed part time personnel, all but three of which maintained less than 50. More than half (63%) of respondents utilized the help of volunteers. Of these respondents, 17 (77%) maintained less than 50 volunteers, and three (23%) maintained over 50. This data shows that Region 7 sample is representative of mainly moderately

sized agencies with 38% of agencies employing over 200 employees, and 62% less than 200.

**Vehicle Information**

**(Figure 7.4)**

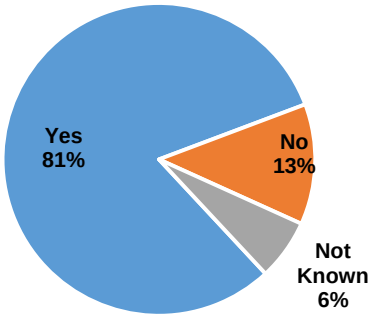



| | Fleet Vehicles that utilize data | Fleet Vehicles that don't utilize data | Personal Vehicles that utilize data |
|---|---|---|---|
| Greater than 500 | 3 | 0 | 0 |
| 201-500 | 4 | 1 | 0 |
| 51-200 | 5 | 5 | 1 |
| 1-50 | 19 | 17 | 7 |

The Survey went on to query information regarding data utilization as it relates to fleet and personal vehicles. A large majority, or 31 of 32, respondents (97%) indicated that their agency's fleet vehicles utilized data, with 19 (61%) agencies operating 1 to 50 vehicles, five (16%) maintaining 51 to 200, four (13%) operating 201 to 500, and three (10%) with greater than 500 vehicles equipped with data capabilities. Twenty three (72%) agencies maintained vehicles not equipped with data, with a majority (74%) operating less than 50. Eight (25%) respondents indicated that their agencies provided data capabilities for personal vehicles. These results maintain the indication that Region 7 respondents are from moderately sized organizations, as a majority (75%) of agencies operate less than 200 vehicles equipped with data.

**Do You Monitor Data?**

**(Figure 7.5)**




Respondents were asked to identify if their organization utilized a data monitoring product. This question will be important for subsequent FloridaNet data collection efforts. Access to data monitoring files may aid in the establishment of a needed broadband baseline coverage map for the first responders and disaster recovery users operating in Region 7. A large majority of respondents (81%) did monitor data, while 19% either did not operate a data monitoring tool (13%) or did not know (6%). Sixteen (62%) of those agencies that did monitor data were from the Law Enforcement discipline, another five

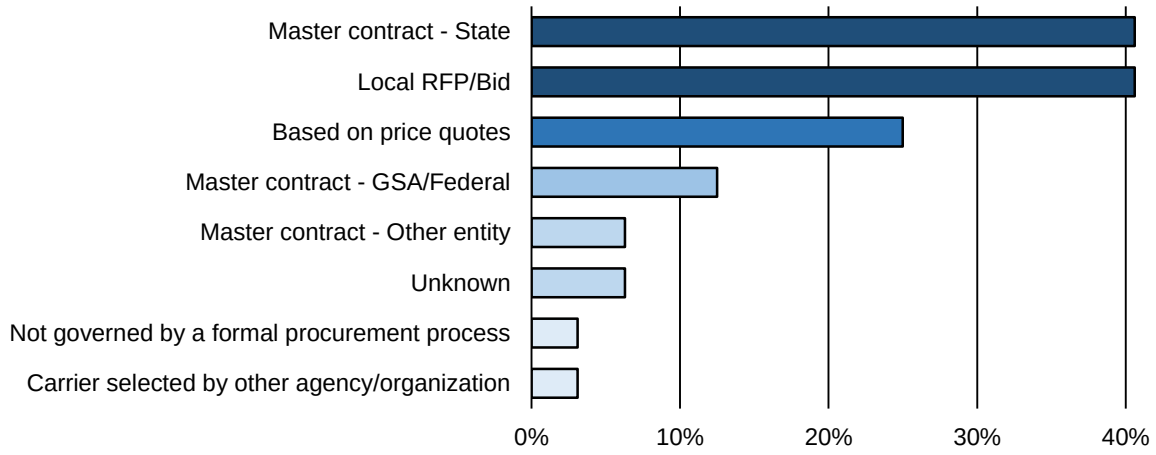
(19%) were from Fire Services, two (8%) were from Public Safety Communications, two respondents from Emergency Medical Services (8%), and one from Emergency Management (4%). This skewed representation of Law Enforcement's utilization of a data monitoring tool is in line with the greater representation of these this discipline. It is a goal of FloridaNet that those 26 agencies that do utilize a data monitoring product share their data so that the local public safety users in Region 7 maintain a strong and vocal presence in the determination of coverage and capacity in the geographic area where they operate their public safety mission.

## Carrier Information

The Survey asked respondents to identify the procurement method of their current carrier(s). Thirteen respondents (41%) indicated that their agency used the State's Master Contract, while 13 (41%) performed a local RFP. Eight respondents (25%) based their selection upon price quotes, and four (13%) utilized the Federal master contract. Two respondents, each, either did not know their agency's procurement process (6%) or used another entity's contract (6%). The remaining respondents indicated that their process was not formalized (3%), or it was selected by another organization (3%).

### Carrier Procurement Method

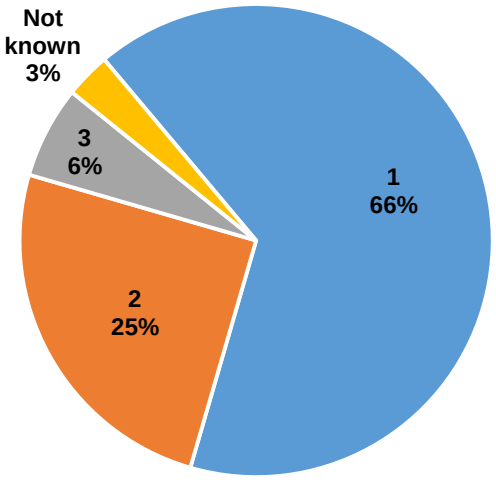
**(Figure 7.6)**




Of the 13 agencies that utilized the Master State Contract, eleven (85%) were from the Local level, one (8%) from the County level, and one (8%) from the State level. two (16%) from the State level, and one (8%) from a special district. One large County Fire Services did not utilize a formalized process to procure a carrier. Of the 13 respondents that utilized a Local RFP process, six (46%) were from Fire Services, four (31%) represented Law Enforcement, two (15%) were from Emergency Management, and one (8%) was from Public Safety Communications.

## Number of Required Carriers

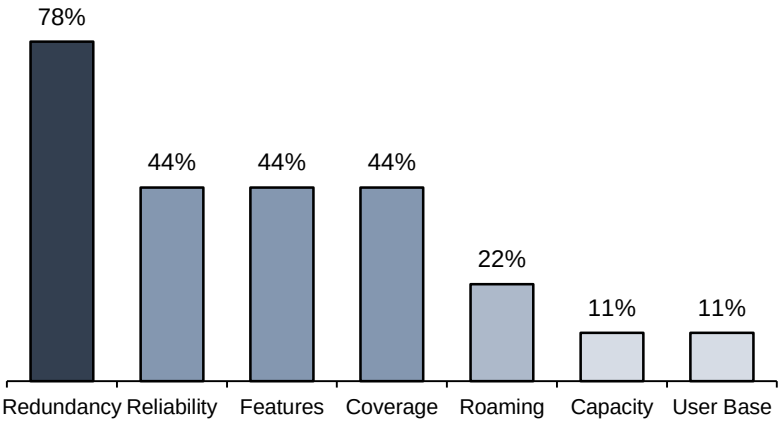
**(Figure 7.7)**




In conjunction with their agency's procurement method, respondents were asked how many carriers were needed to fulfill their public safety mission. Twenty respondents (66%) answered that their agency required only one commercial provider. These 21 respondents represent 17 (81%) Local agencies, three (14%) County agencies, and one (5%) Private Emergency Medical Services corporation. The eight (25%) respondents that indicated needing two carriers were from the Local, County, and Federal jurisdictions, representing Fire Services, Law Enforcement, Emergency Medical Services, Public Safety Communications, and the Military. The two (6%) agenices that needed three carriers were from Local Law Enforcement and a private Emergency Medical Services corporation, both from the two more densely populated counties of Region 7. The one respondent that utilized four or more carriers was a County Public Safety Communications agency. Only a (3%) State Law Enforcement agency did not know how many devices were assigned to each employee.

## Why Do You Require Multiple Carriers?

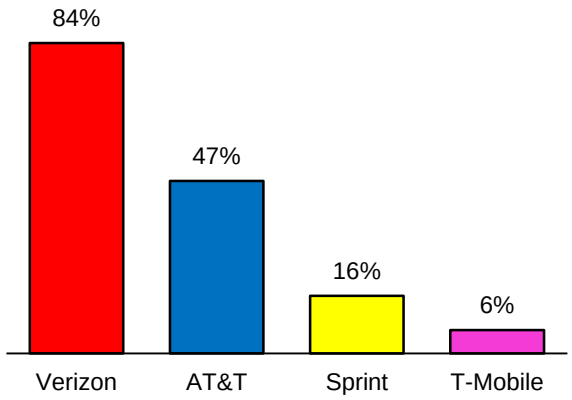
**(Figure 7.8)**




The Survey went on to query why those agencies that use more than one provider require multiple carriers. This important follow-up question should reveal the current commercial shortcomings that FirstNet must address for full public safety adoption. Seven (78%) organizations requiring multiple carriers indicated Redundancy as a major factor. Reliability, Features, and Coverage were cited by four respondents, each, that were from Local and County Law Enforcement and Emergency Management. The organization that cited User Base was a Local Law Enforcement agency that provided different carriers for uniformed and undercover officers.

## Commercial Carrier Provider

**(Figure 7.9)**

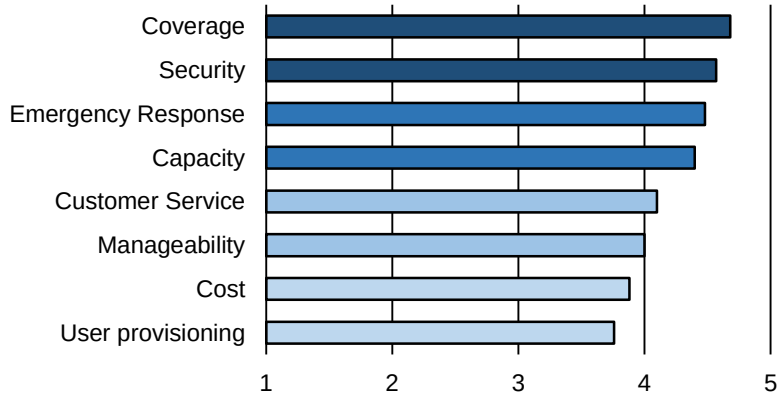



The respondents were then asked to identify which provider they use. Twenty seven respondents (84%) indicated that they use Verizon as their primary mobile data provider. Of the 13 agencies that utilized the Master State Contract procurement process, all (100%) used Verizon as their primary carrier, while two (15%) of these organizations used Sprint to supplement Verizon, and four (27%) used AT&T as a supplement. A County Emergency Management agency utilized AT&T as the only mobile data carrier, and a Local Law Enforcement organization used T-Mobile as the sole provider. The two organizations that relied solely upon Sprint were Local Law Enforcement agencies in the two larger counties of Region 7.

No respondents indicated that their agency or organization maintains and utilizes a private data network. This result may have arisen from a sampling error.

## Factors for Choosing A Carrier

**(Figure 7.10)**




The Survey asked what factors were the most important in choosing a carrier. The respondents could choose from five options: 1. Not at all important; 2. Slightly important; 3. Moderately important; 4. Very important; and 5. Extremely important.

Figure 7.10 shows the weighted averages of the respondents. Coverage (74% Extremely Important), Security (70% Extremely Important), Emergency Response (65% Extremely Important), and Capacity (53% Extremely Important) were the most important factors in Region 7. The least important factors were Cost (22% Extremely Important) and User Provisioning (10% Extremely Important). The respondents that indicated Cost as Extremely Important were all from the Local level, and predominantly (86%) Law Enforcement agencies. All of the factors, however, were ranked as at least moderately

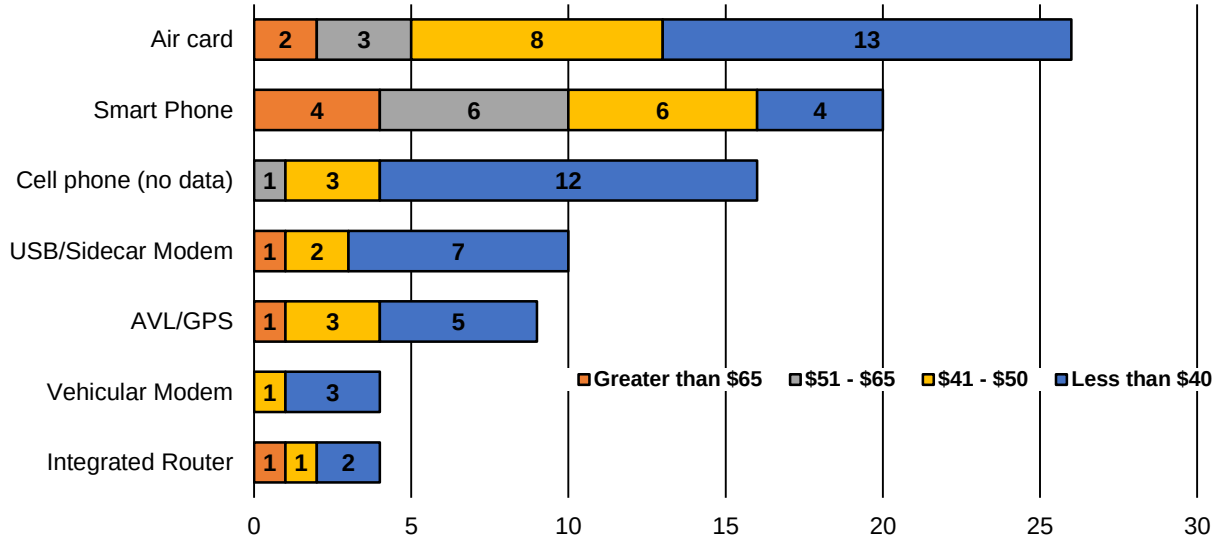
important. These results indicate that all of the facets of a mobile data network are important to public safety, and should not be overlooked.

## Devices

Respondents were queried on the types of mobile devices used by their agency, along with the monthly bill for each device. Twenty respondents (65%) indicated that their organization utilized Smart Phones with mobile data capabilities. Of those respondents, 50% paid less than $50 per month, 30% paid between $51 and $61, with the remaining 20% paying greater than $65. Fifteen (47%) respondents indicated that their agency utilized cell phones that do not have access to data. The fact that a larger majority (65%) of respondent agencies are utilizing data capable smart phones highlights the paradigm shift from strictly voice enabled phones (47% of respondents) to those devices capable of supporting mission critical data applications. Other types of devices being utilized in Region 7 included air cards (81%), dedicated GPS devices (28%), and USB/Sidecar modems (31%).

**Monthly Bill per Mobile Device**

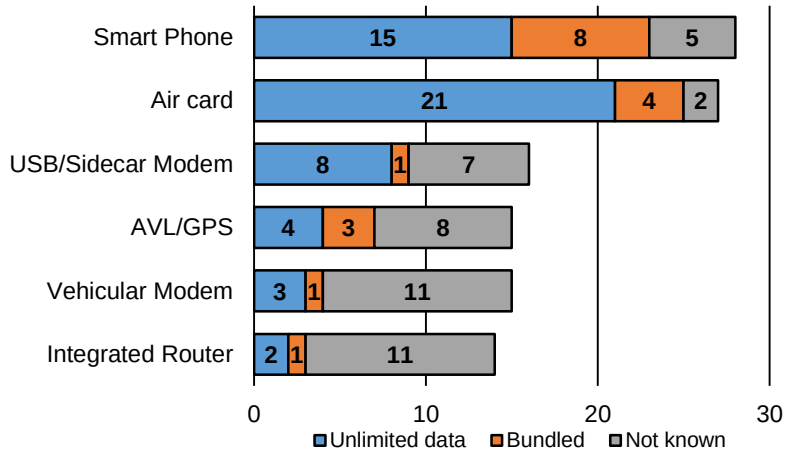
**(Figure 7.11)**




From Figure 7.11, it is clear that a large majority of agencies and organizations paid less than $51 per month per mobile device. Of those agencies that paid less than $40 per month per smart phone, 75% were Local Law Enforcement. The agencies that paid more than $51 per month per Air card were two Local Law Enforcement organizations, one State Law Enforcement agency, one Local Emergency Management, and one Federal Military.

## Data Plan per Mobile Device

**(Figure 7.12)**

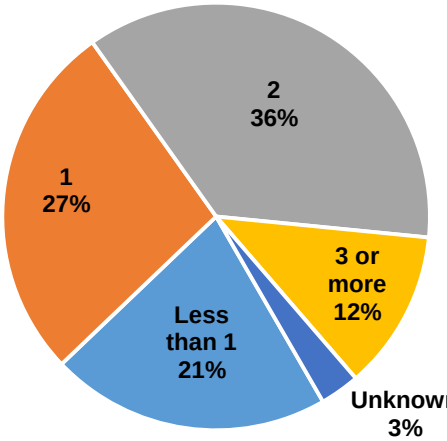



To understand the range of monthly bills, the survey asked the respondents what type of data plan their agency used. The two possible answers were unlimited or bundled data plans. Unlimited data plans allow each data capable device to use as much data as needed, without any financial penalties. Bundled data plans cap each device at a specific amount of data per month. To avoid financial penalties, the bundled data plan creates a shared pool of data limits across the entire agency. This arrangement allows one device that uses a large amount of data to be offset by a device that uses a small amount of data.

Of the respondents that indicated their agency utilized smart phones, 54% had an unlimited data plan, 17% had a bundled data plan, and 18% did not know what plan their organization utilized. The results for the Air card were similar, with 78% of respondents utilizing unlimited data, 15% utilizing a bundled data plan, and 7% did not know what type of plan their organization used. An overwhelming majority of responses showed that public safety agencies utilize unlimited data plans, regardless of the type of device.

## Devices per Employee

**(Figure 7.13)**



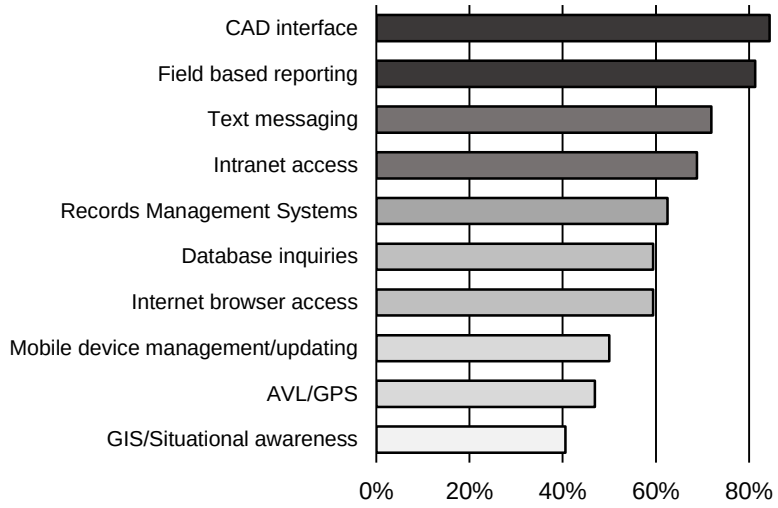

The Survey went on to ask respondents how many devices were allocated to each employee. A large portion of respondents (36%) indicated that two devices were assigned to each employee. Seven of these agencies were from the County jurisdictional level (58%), four from the Local (33%), and one from the State (8%).

One State Law Enforcement agency (3%) did not know how many devices were allocated to each employee. Five (12%) agencies assigned three or more devices to each employee: one Federal Military, one local Emergency

Management, one Local Fire Service, one Local Law Enforcement, and one County Emergency Management. Almost half (48%) of respondents provided their employees with one mobile data equipped device or less (27% and 21%, respectively).

## Mission Critical Applications

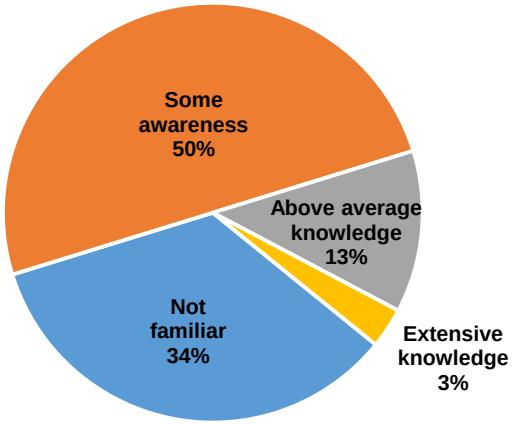
**(Figure 7.14)**




After inquiring why a commercial network was chosen, the Survey then asked how the network was used. Specifically, respondents were queried regarding which mission critical activities rely on mobile data networks. The majority of respondents (84%) identified CAD interface as the top mission critical activity that relied on mobile data, followed by Field Based Reporting at 81%. Text messaging and Intranet access followed at 72% and 69%, respectively. The results shown in Figure 7.14 may be skewed due to the large representation of the Law Enforcement discipline. It is important to note that the future applications used by public safety have yet to be determined, but the recent trend indicates an increase in technology such as body worn cameras and applications that increase situational awareness, which utilize larger amounts of data transfers.

## Agency Awareness of FloridaNet

**(Figure 7.15)**




The final question focused upon the respondents' awareness of the FloridaNet program. Understanding if an agency is familiar with FloridaNet will aid in subsequent education and outreach development initiatives. A majority of respondents (66%) indicated that their organization was familiar with the FloridaNet project, with one (3%) having extensive knowledge, four (13%) having above average knowledge, and 16 (50%) having some awareness. Eleven (34%) respondents indicated that their agency was not familiar with the FloridaNet project at all. One of the

goals of FloridaNet is to actively engage and obtain input from all potential public safety users of the NPSBN in order to obtain the best possible network for Florida's local public safety organizations. Based upon these results, FloridaNet must seek to engage those agencies who are not familiar with FloridaNet, and increase participation of those that have some awareness until 100% of the agencies across Region 7 have extensive knowledge of the initiative.

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# Conclusion

The goal of the Contract Vehicle Survey was to gain preliminary insights on the potential users of the NPSBN, along with their current commercial mobile data providers, the devices that are being used by Florida's public safety organizations, and what features these professionals are expecting from this nationwide initiative. The survey was completed by 250 individual practitioners from across the State representing rural, suburban, and urban demographics. Additionally, 53 of the 67 counties that make up Florida had at least one respondent, which further validates the representativeness of the diverse demographics found across the State.

The cohort with the greatest representation was from the Law Enforcement discipline, followed by Fire Services. Together, these two groups make up 58% of respondents. While this may have skewed the results from other, non-traditional, public safety respondents, the input from these two disciplines is extremely important in understanding the needs of first responders as it relates to the NPSBN. Florida has remained committed to a broad definition of "public safety" for the NPSBN. Therefore, the FloridaNet team must initiate further education and outreach to include important recovery organizations such as public utilities and health care agencies.

While there may have been underrepresentation of the non-traditional responders, there was a diverse demographic of sizes of organizations. A majority of respondents were from small to moderately sized agencies. This is consistent with the large rural swaths of Florida, where over 200 employees may not be necessary. More than half of the responding organizations utilized the help of volunteers. This fact may prove to be crucial in the establishment of protocols and procedures as it relates to bring your own device (BYOD) management.

One of the most important questions related the utilization of a data monitoring tool. Hard data will be imperative for the creation of valid coverage and capacity maps. FloridaNet hopes to gather data such as application usages, required throughput values, and responding latitude/longitude points. This information will then be consolidated and visually represented in a GIS format so FirstNet can understand what our local users need and expect out of the NPSBN.

To encourage public safety adoption of the NPSBN, FirstNet will have to meet, or exceed, current commercial offerings. A majority of respondents indicated needing only one carrier, with Verizon being the most popular across the State. Those organizations that needed two or more carriers to achieve their public safety missions did so due to required

coverage and redundancy. These results highlight the need for FirstNet to provide coverage in both urban and rural areas, while maintaining a high degree of reliability through hardening infrastructure.

The Congressionally mandated NPSBN rural milestones will also be very important for the adoption of Florida's public safety users. According to the 250 respondents, coverage was the most important factor when choosing a carrier. Additionally, the State of Florida has numerous Counties with low population densities. These counties will require the same reliable network as the densely populated ones, where commercial carriers have historically provided greater amounts of capacity and coverage. Therefore, FirstNet must provide adequate, and expanded, coverage beginning in the first phase of the NPSBN rollout.

The cost of FirstNet's data plans will also be important for high rates of adoption. According to the survey results, a majority of agencies allocate multiple data capable devices to each employee. Additionally, most respondents indicated that their organizations pay less than $50 per device per month for these services. The respondents mainly used the State's Master Contract or a Local RFP/Bid process to procure their mobile data carriers. This may show FirstNet that public safety users should have flexible purchasing options in order to encourage participation.

Finally, the survey showed promising results regarding awareness of the FloridaNet program. A large majority of respondents were at least somewhat aware of this initiative. Although this project has existed for about two years, there were not many tangible developments until the second quarter of 2015. Since this time, FirstNet has issued two requests for public comment and a draft request for proposal. These items have been thoroughly analyzed and responded to by the FloridaNet team and governance bodies. Additionally, many governance, technical, and operational aspects of the NPSBN have been developed through these documents. With these new insights, the FloridaNet team will create updated education and outreach materials to inform local public safety entities of this initiative. Local meetings will also be held in order to increase awareness of potential users.

It is a goal of FloridaNet to have the thousands of public safety users operating across Florida to become fully aware of the importance of the NPSBN. A dedicated data communications network will provide first responders, from all disciplines, with a mission critical data pathway to support their current mission critical voice networks. Additionally, the inherent interoperability of the network will ensure that aid from across the nation will be able to perform missions in conjunction with Florida's public safety organizations in the event of a major natural or manmade disaster.

| | Surveys Sent | Response Rate | Number of Counties Represented | Highest Population | Lowest Population | Average Population Density | Most Common Carrier | Most Common Procurement Method | Number of Devices per Employee | Percentage of Organizations Monitoring Data | Percentage of Organizations Requiring Multiple Carriers | Price per Device per Month | Most Common Data Plan | Most Common Mission Critical Application |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Region 1** | 45 | 44% | 5 of 10 | 305,817 (Escambia) | 14,625 (Calhoun) | 157 | Verizon (85%) | Master Contract – State (35%) | 2 (55%) | 45% | 15% | $50 or Less (73%) | Unlimited (80%) | Internet Browsing (79%) |
| **Region 2** | 76 | 22% | 8 of 13 | 275,487 (Leon) | 8,365 (Liberty) | 67 | Verizon (100%) | Master Contract – State (41%) | 2 (44%) | 41% | 24% | $50 or Less (81%) | Unlimited (89%) | One-way Messaging (63%) |
| **Region 3** | 70 | 46% | 11 of 13 | 885,855 (Duval) | 15,535 (Union) | 228 | Verizon (81%) | Master Contract – State (35%) | 2 (31%) | 59% | 21% | $50 or Less (74%) | Unlimited (82%) | One-way Messaging (74%) |
| **Region 4** | 110 | 23% | 7 of 8 | 1,291,578 (Hillsborough) | 27,731 (Hardee) | 838 | Verizon (92%) | Master Contract – State (28%) | 2 (52%) | 52% | 28% | $50 or Less (91%) | Unlimited (83%) | Internet Browsing (84%) |
| **Region 5** | 192 | 58% | 9 of 9 | 1,253,001 (Orange) | 141,994 (Indian River) | 573 | Verizon (75%) | Master Contract – State (28%) | 2 (35%) | 57% | 51% | $50 or Less (76%) | Unlimited (79%) | One-way Messaging (79%) |
| **Region 6** | 79 | 36% | 9 of 10 | 661,115 (Lee) | 12,884 (Glades) | 253 | Verizon (85%) | Master Contract – State (39%) | 2 (36%) | 55% | 15% | $50 or Less (87%) | Unlimited (90%) | Internet Browsing & One-way Messaging (78% each) |
| **Region 7** | 94 | 34% | 4 of 4 | 2,662,874 (Miami-Dade) | 73,090 (Monroe) | 892 | Verizon (84%) | Master Contract – State (41%) | 2 (36%) | 81% | 31% | $50 or Less (80%) | Unlimited (75%) | CAD Interface (84%) |
| **Total** | **666** | **38%** | **53 of 67** | **2,662,874 (Miami-Dade)** | **8,365 (Liberty)** | **430** | **Verizon (86%)** | **Master Contract – State (35%)** | **2 (41%)** | **56%** | **26%** | **$50 or Less (80%)** | **Unlimited (83%)** | **One-way Messaging (73%) Internet Browsing (69%)** |

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## Region 3



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## Region 6

# Region 7



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# Contract Vehicle Survey

Thank you for participating in the data collection efforts to design the nations first public safety broadband network. The information collected will be provided to the FloridaNet team for use in the consulation process with FirstNet.

***1. Select your organization type:**

- ◯ Federal
- ◯ State
- ◯ Local
- ◯ County
- ◯ Tribal
- ◯ Private Corporation
- ◯ Public Utilities
- ◯ Public Health Care
- ◯ Other (please specify)

***2. Please select the discipline that best describes your agency or division:**

- ◯ Courts, Corrections and Security
- ◯ Emergency Management
- ◯ Emergency Medical Services
- ◯ Facilities and Land Management
- ◯ Fire Service
- ◯ Highway and DOT
- ◯ Hospitals and Medical Facilities
- ◯ Law Enforcement (Municipal, State, Sheriff, Highway Patrol)
- ◯ Military
- ◯ National Security/Intelligence
- ◯ Public Administration and Support Services
- ◯ Public Health
- ◯ Public Safety Communications
- ◯ Public Utilities (Electricity, Gas, Water, Telecom and Sewer)
- ◯ Specialized Law Enforcement (Investigations, Intelligence, Dignitary Protection, Specific Jurisdiction or Mission)
- ◯ Transportation Services
- ◯ Other (please specify)

***3. Please provide some details about yourself and your organization:**

| | |
|---|---|
| **Name:** | |
| **Agency/Organization:** | |
| **Address:** | |
| **Address 2:** | |
| **City/Town:** | |
| **State:** | |
| **ZIP:** | |
| **Position/Title:** | |
| **Email Address:** | |
| **Phone Number:** | |

***4. How many of the following types of employees are in your agency? (For the purposes of tracking agency staff, contractors should be considered employees):**

| | 0-50 | 51-200 | 201-500 | 501-1000 | Greater than 1000 |
|---|---|---|---|---|---|
| Full Time | ◯ | ◯ | ◯ | ◯ | ◯ |
| Part Time | ◯ | ◯ | ◯ | ◯ | ◯ |
| Volunteers | ◯ | ◯ | ◯ | ◯ | ◯ |

***5. Please provide information on your vehicles used in your agency/organization:**

| | 0 | 1-50 | 51-200 | 201-500 | 501-1000 | Greater than 1000 |
|---|---|---|---|---|---|---|
| Fleet Vehicles that utilize data | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| Fleet Vehicles that don't utilize data | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| Personal Vehicles that utilize data | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| Personal Vehicles that don't utilize data | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |

**6. Does your agency/organization utilize any type of data monitoring/data management product?**

◯ Yes

◯ No

◯ Not Known

FloridaNet is collecting this data to determine what contract vehicle you utilized to obtain your current wireless broadband data service. Carrier = mobile data carrier

***7. What procurement process was utilized by your agency to select your carrier (select all that apply)?**

- [ ] Master contract - GSA/Federal
- [ ] Master contract - State
- [ ] Master contract - Other entity
- [ ] Local RFP/Bid
- [ ] Based on price quotes
- [ ] Not governed by a formal procurement process
- [ ] Carrier selected by other agency/organization
- [ ] Unknown
- [ ] Other (please specify)

**8. How many mobile data carriers are required to fulfill your public safety mission?**

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4 or more
- ◯ Not known

**9. Why do you require multiple carriers? (check all that apply)**

- [ ] Coverage
- [ ] Capacity
- [ ] Features
- [ ] Roaming
- [ ] Redundancy
- [ ] Reliability

Other (please specify)

***10. Please check each of the commercial carriers you use (check all that apply):**

- [ ] AT&T
- [ ] Metro PCS
- [ ] Sprint
- [ ] T-Mobile
- [ ] TracFone
- [ ] US Cellular
- [ ] Verizon
- [ ] Other (please specify)

**11. Do you utilize a private data network?**

- ◯ Yes
- ◯ No

**12. You indicated that you utilize a private data network. Do you own or lease the network?**

- [ ] Owned
- [ ] Leased
- [ ] Vendor (please specify)

**13. What types of mobile device appliances do you utilize and what is your monthly bill for each?**

| | Less than $40 | $41 - $50 | $51 - $65 | Greater than $65 | N/A |
|---|---|---|---|---|---|
| Air card or computer/tablet with integrated wireless modem | ◯ | ◯ | ◯ | ◯ | ◯ |
| Smart Phone | ◯ | ◯ | ◯ | ◯ | ◯ |
| Cell phone (voice only, no data) | ◯ | ◯ | ◯ | ◯ | ◯ |
| USB/Sidecar Modem | ◯ | ◯ | ◯ | ◯ | ◯ |
| Automatic Vehicle Location/ Global Positioning System (AVL/GPS) | ◯ | ◯ | ◯ | ◯ | ◯ |
| Vehicular Modem | ◯ | ◯ | ◯ | ◯ | ◯ |
| Integrated Router | ◯ | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

**14. What type of data plan do you have for these devices?**

| | Unlimited data | Bundled | Not known |
|---|---|---|---|
| Air card or computer/tablet with integrated wireless modem | ◯ | ◯ | ◯ |
| Smart Phone | ◯ | ◯ | ◯ |
| Cell phone (voice only, no data) | ◯ | ◯ | ◯ |
| USB/Sidecar Modem | ◯ | ◯ | ◯ |
| Automatic Vehicle Location/ Global Positioning System (AVL/GPS) | ◯ | ◯ | ◯ |
| Vehicular Modem | ◯ | ◯ | ◯ |
| Integrated Router | ◯ | ◯ | ◯ |

Other (please specify)

***15. Approximately how many devices does each employee have in your organization (devices include laptops with air-cards, tablets, and smart phones)? Please include any personal devices used for work purposes.**

- ◯ Less than 1 (a small amount of employees share devices)
- ◯ 1
- ◯ 2
- ◯ 3 or more
- ◯ Unknown

**16. What are the most important factors you consider when selecting a mobile data carrier?**

| | Not at all important | Slightly important | Moderately important | Very important | Extremely important |
|---|---|---|---|---|---|
| Cost | ◯ | ◯ | ◯ | ◯ | ◯ |
| Coverage | ◯ | ◯ | ◯ | ◯ | ◯ |
| Capacity | ◯ | ◯ | ◯ | ◯ | ◯ |
| Customer Service | ◯ | ◯ | ◯ | ◯ | ◯ |
| Manageability | ◯ | ◯ | ◯ | ◯ | ◯ |
| Security | ◯ | ◯ | ◯ | ◯ | ◯ |
| User provisioning | ◯ | ◯ | ◯ | ◯ | ◯ |
| Emergency Response | ◯ | ◯ | ◯ | ◯ | ◯ |

**17. What mission critical activities rely on your mobile data network? (check all that apply)**

- [ ] Text messaging, paging, one way notifications
- [ ] Automatic Vehicle Location/ Global Positioning System (AVL/GPS)
- [ ] Database inquiries (FCIC/NCIC, criminal history, hot files)
- [ ] Records Management Systems (local queries)
- [ ] Computer Aided Dispatch (CAD) interface
- [ ] Field based reporting
- [ ] Small File transfers (up to 1MB)
- [ ] Large File transfers (over 1MB)
- [ ] GIS/Situational awareness
- [ ] Internet browser access
- [ ] Intranet access/VPN to home network
- [ ] Tactical "chat" rooms
- [ ] Transmission of low quality video
- [ ] Transmission of high quality video
- [ ] Telemetry (continuous process status monitoring)
- [ ] Web based training
- [ ] Video conferencing
- [ ] Mobile device management/updating
- [ ] Land Mobile Radio (LMR) integration

Other (please specify)

Thank you for participating in the FloridaNet contract vehicle survey.

**18. What is the level of awareness within your agency of the FloridaNet program?**

- ◯ Not familiar at all with the mission, goals and operations
- ◯ Some awareness of the mission, goals and operations
- ◯ Above average knowledge of the mission, goals and operations
- ◯ Extensive knowledge of the mission, goals and operations

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