Since 1992, Harris County has been a leader and driving force behind providing Wireless Communications for Public Safety. The initial system covered Harris County and quickly began expanding until it has reached its coverage of the HGAC (Houston-Galveston Area Council) Region that encompasses 13 counties, 12,314 square miles, and serves over 5.866 Million in population (this is 24% of the entire State of Texas population). Harris County has also participated with other public safety agencies and the state in an organization called the Texas Radio Coalition. This Coalition was formed to write the new State Communications Interoperability Plan. This allowed the Statewide public safety agencies to get monies from the NTIA Public Safety Interoperability Communications Grant. Recently, Harris County partnered with other entities in the Eastern portion of the State of Texas to collaborate and expand the existing Public Safety Communication infrastructure to cover all or part of 17 additional Counties outside of the HGAC region, reaching as far North as Gregg County with continuous coverage South to the Texas Gulf Coast. Harris County, along with its partners, are positioned to systematically deploy broadband throughout this region as well. As part of this broadband project, there will be a Public Safety Interoperability Gateway (PSIG). This will allow an interface to the large existing LMR system that has over 44,000 Public Safety users for enhanced interoperability and will create a replicable model for other areas in the State of Texas to follow. The plan is to leverage existing LMR sites along with other County facilities, towers and building locations for this initial deployment of Broadband coverage. The Middle Mile coverage outside the 13 county HGAC region will continue North on these LMR sites into Northeast Texas, touching all or part of 13 counties that East Texas Medical Center currently provides Hospital and Medical Emergency response to. This also encompasses the major evacuation routes leaving the Texas Gulf Coast. The other large partner participating in this collaborative effort is located Northwest of Harris County in Brazos and Washington Counties (BVWACS), which serves public safety communications for 207,866 in population and covers 1,194 square miles. All of these regions cover the entire demographic portfolio of ethnicity, wealth and poverty, and urban and rural areas of served and underserved areas. In addition, these areas also include all UASI defined threats including Ports of Houston, Freeport, Galveston, and Texas City, a multitude of Petrochemical and fuel refineries, Biomedical Research, Nuclear Power Plant, Aerospace (NASA), and major air traffic. In order to facilitate broadband deployment, it is critical that Harris County and the region have a sound and solid Middle Mile infrastructure that can provide a expedient, systematic and robust “open” network to provide broadband to not only community anchor tenants, but then be able to support private, public, and individual connectivity that will then occur through switching, routing, and leadership. This will enable the delivery of critical public services in healthcare, education, and public safety; and private
investment in infrastructure and technology applications for broadband. This Middle Mile is essential to last mile completion of broadband deployment, and will provide a full range of interconnect possibilities to meet provider, carrier, and end user requirements. Harris County’s strategy is designed to foster competition generated by built-in multiple accesses, with the foreseeable reduction in costs for service for actual end users. The proposed system will include a roaming agreement with a national Public Carrier to provide a contiguous connection when outside of the LTE designated coverage areas. This agreement will provide offloading of public safety traffic from their network and create a partnership for future broadband initiatives in these regions, which ultimately benefits all involved. To address demand and sustainability issues, Harris County, through the selection of the anchor tenants for the build out, designed the broadband deployment strategy to enhance critical services to citizens, which is paramount in building demand for robust broadband service. Identifying these key institutions that include County-owned facilities ranging from Community Centers to libraries, to public secondary schools, to institutions of higher learning, is paramount to penetrating areas of lower income and underserved sectors of the County. This proposal will also address this same key point in Austin County, which is part of the HGAC region, and in Smith County in East Texas as pilots for this initiative to show how anchor tenants and our agreement with National public carrier will provide these underserved areas. The goal in the future, as buildout continues, will be to provide this same level of service for critical infrastructure along with public access. Healthcare – Houston is the seat of the internationally renowned Texas Medical Center, which contains the world’s largest concentration of research and healthcare institutions. All 47 member institutions of the Texas Medical Center are non-profit organizations. They provide patient and preventive care, research, education, and local, national, and international community well-being. Employing more than 73,600 people, institutions at the medical center include 13 hospitals and two specialty institutions, two medical schools, four nursing schools, and schools of dentistry, public health, pharmacy, and virtually all health-related careers. The deployment of this initiative will help bridge existing gaps in wireless communications among these facilities and potentially provide public access for patients and other healthcare providers. These same individual entities, such as Methodist Hospital, are branched out to surrounding Counties in the HGAC region previously discussed. Education – The Harris County Department of Education encompasses 26 Independent School Districts that have over 1,000 campuses. In addition Austin and Smith Counties have 54 campuses that will combine for these three counties to serve as anchor institutions. Higher Education of Community Colleges and Universities number 20 campuses adding to the systems ability to provide broadband capabilities in these areas. Libraries – There will be approximately 37 public libraries that can serve as anchor institutions. These libraries will have additional access to broadband capability to serve the needs of a community public computing facility; this Middle Mile will serve to reach the general community during normal business hours and after hours. Public Safety – The Harris County Regional Public Safety Communications System provides service to 319 agencies from local Police, Sheriff, EMS, Fire, to State and Federal agencies that include Railroad authorities, FBI, DEA, and ATF for interoperability needs. This Middle Mile solution can be built rapidly and is guaranteed to provide both broadband access and service to the anchor tenants and the low income, aged, and unemployed as the deployment uses the competitively bid existing contract for broadband services. This proposal is to build the primary Middle Mile solution; thus allowing for multiple Last Mile solutions that may be accessed by most, if not all, providers. The Last Mile is not dependent on the type of fiber, who built it, or what it
looks like. The importance is placed on good quality and accessibility for a nominal access fee. This solution provides a gamut of interconnect possibilities that will meet provider, carrier, and end user requirements. Anticipation is for actual end user costs for service to be greatly reduced due to the natural competition generated by the multiple accesses provided with the solution. This enables the rural areas in Harris, Austin, and Smith Counties to be reached with broadband services that are either unserved or underserved currently.