

Bexar Metro 9-1-1 Network

Fiscal Year 2020 Draft Budget and Financial Plan

PURPOSE

The purpose of this document is to obtain consensus approval of Bexar Metro 9-1-1 Network's (Bexar Metro or District) Fiscal Year 2020 (FY2020) operational and financial plans by the District's board of directors and the governing bodies of its forty (40) participating jurisdictions; and provide the continuing operational and fiscal authority necessary for the staff to aggressively establish and maintain a highly survivable and resilient 9-1-1 system.

AUTHORITY

The authority for Bexar Metro is the Texas Health and Safety Code, Chapter 772, Subchapter D, Section 772.301—formerly Vernon's Annotated Civil Statutes Article 1432e, as approved by the Texas 69th Regular Legislative Session in Senate Bill 750 on May 21, 1985; and subsequently approved by a local election on January 17, 1987. This legislation's purpose is to enable the provision of affordable, high quality, countywide Enhanced 9-1-1 service through the establishment of emergency communication districts.

MANAGEMENT

A governing board of directors, appointed according to criteria in the enabling legislation, establishes policy and provides oversight of the District. The board members and their appointing authority include:

<u>Member</u>	<u>Authority</u>
James C. Hasslocher (Chair)	Bexar County
Stephen R. Schneider	Bexar County
Sherman Krause	Comal County
Dudley Wait	Guadalupe County
Heberto Gutierrez	City of San Antonio
Bill McManus	City of San Antonio
Cathy C. Talcott	City of New Braunfels
Suzanne de Leon	Member at Large
Principal Service Provider (Non-Voting)	Vacant

To implement board policy and to manage the day-to-day operations, the board of directors appointed Brett M. Schneider as Bexar Metro's Executive Director.

MISSION

The District's mission is to deploy and maintain a state-of-the-art 9-1-1 emergency communication system that enables citizens in distress to quickly communicate their request for police, fire, or emergency medical assistance; and to ensure member jurisdictions have the appropriate 9-1-1 tools necessary to efficiently and accurately receive and process those requests.

RESPONSIBILITY

To successfully accomplish the mission, Bexar Metro must deploy and manage a technology neutral network that routes all 9-1-1 requests to the appropriate answering and responding jurisdiction; create and maintain a time-sensitive, highly accurate database that displays the location, callback number, and owner's name of the specific instrument used to call 9-1-1; procure, install, and maintain the specialized 9-1-1 equipment utilized by each authorized answering and responding jurisdiction; coordinate with municipal and jurisdictional addressing authorities to ensure the database contains accurate, standardized, and logical location information to ensure each citizen is easily and quickly locatable during times of critical emergencies; and construct, deploy, and maintain a spatially accurate geographic digital map to support location determination technologies and enhance computer aided dispatch systems. Bexar Metro is also responsible for providing effective backup solutions for its Public Safety Answering Points (PSAPs) that may be required to evacuate their local facility in the event of a natural or manmade disaster.

FUNDING

The District's source of revenue is the 9-1-1 emergency service fee applied to specified telephone access lines located in Bexar, Comal, and Guadalupe Counties. The Texas Health and Safety Code, Chapter 772, Section 772.314, authorizes the board to impose a 9-1-1 emergency service fee not exceeding six percent of the monthly base rate charged by the principal service supplier. The fee applies to all residential lines and up to the first one hundred business lines at one location. The fee does not apply to state and federal lines. Each year the board calculates the amount of the fee in conjunction with development and approval of the annual budget. By law, the fee has uniform application in each participating jurisdiction and must generate revenue sufficient to match current and projected operational expenses directly related to the District's mission and responsibilities, as well as providing reasonable reserves for contingencies and equipment replacement.

The board of directors initially established the emergency service fee on March 6, 1987, and it remained unchanged until 2018. On July 25, 2018 the board of directors approved the following service fee schedule imposed on each local access line, or equivalent, effective October 1, 2018:

Residential Lines	\$ 0.50
Business Lines	\$ 1.00

In addition to fees assessed on wireline telephones, Bexar Metro also receives an emergency service fee from each wireless access line within its jurisdiction. This monthly fee, set by Texas law at \$0.50 per line, recognizes that the wireless telephone is a link to 9-1-1 service and a wireless telephone user should therefore share a portion of the financial burden for provisioning the network. It also is in recognition of the cost recovery mechanism required to defray a fair and reasonable portion of the network infrastructure expense the wireless providers incur in meeting the federal mandate for wireless Enhanced 9-1-1. The current fee structure is adequate to support programmed spending in FY2020.

OVERVIEW

The District recently completed a two-year project to replace 9-1-1 equipment and network infrastructure at all eighteen (18) PSAPs within our area of responsibility. This project, coupled with the deployment of a new IP-based, switched ethernet network, and LTE backup, was the first phase in upgrading our Emergency Services IP Network (ESINet). Projects are underway in the current budget year to strengthen network survivability through the addition of a second IP network for added redundancy and circuit diversity.

The 9-1-1 landscape continues to evolve. Legacy technologies have served Bexar Metro well over the past thirty-two years, but continued advancements in communications technologies and the public's expectation of summoning emergency assistance regardless of device type or technology requires Bexar Metro to remain proactive in preparing for the future. We are now on the cusp of deploying Next Generation Core Services (NGCS) through the interconnection of our ESINet infrastructure to a national NGCS platform. This interconnection to multiple, geographically diverse core sites will provide access to software and specialized databases required to process 9-1-1 emergency requests in the next generation environment and provide enhanced redundancy of call processing controls. Each independent core site is capable of load sharing and automatic, transparent failover should a network or technical issue render a node inoperable.

The NGCS solution provides the following National Emergency Number Association (NENA) i3 compliant core services:

- Redundant Border Control Functionality (BCF) for system security and intrusion detection
- Emergency Call Routing Function (ECRF) and Emergency Service Routing Proxy (ESRP) for enhanced call selective routing
- Emergency Service Routing Proxy (ESRP) to support legacy tabular and future GIS-based call routing using Bexar Metro's sub-meter accurate GIS files
- Policy Routing Functions (PRF) to support preplanned routing changes based on specific call conditions or contingency scenarios
- Fully integrated Text-to-9-1-1 control services

NGCS not only facilitates the transition to the next generation of 9-1-1 multimedia services, to include voice, text, and video, but also provides a diverse, fully tolerant, high availability selective routing system with no single points of failure.

The District's ability to better detect, mitigate, and protect against cyber security threats is paramount as we continue our transition into NGCS and an all IP-enabled network. Evolution of IP-based 9-1-1 components, interfaces with outside data sources, and the position of 9-1-1 as a rich target for hackers, requires Bexar Metro to establish a solid, defensible security posture prior to the transition from the "closed" legacy environment to fully IP-based ESINet with NGCS. The first phase of a multi-year cyber security and protection project planned for FY2020, partially funded by a Federal 9-1-1 Grant administered by the Commission on State Emergency Communications (CSEC), will enhance the District's ability to identify and defend against cyber threats. The creation of a Network Security Operations Center (NSOC) will provide staff with the tools necessary to maintain 9-1-1 system reliability and allow for a proactive response to network anomalies or cyber security threats. A vulnerability assessment will help identify gaps in security and establish a plan to mitigate future occurrences.

The overarching goal of the NGCS and cyber security initiatives is to enhance and protect the mission critical 9-1-1 network to better facilitate the delivery of emergency requests for service and ultimately expedite emergency response. Total Operations and Maintenance (O&M) expenditures will increase by 33.45 percent to \$13,479,853 in the upcoming year due to costs directly associated with the deployment of NGCS and implementation of cyber security protective measures.

The District's strategy is to attract and retain qualified individuals capable of maintaining Bexar Metro's specialized public safety critical networks and equipment. The FY2020 budget personnel line item increased by 2.93 percent to \$3,164,046. This increase includes a modest cost of living adjustment for current staff. The addition of a Cisco-certified Network Security Engineer is proposed for FY2020 to provide network engineering support and design the cyber security architecture required to protect our critical networks.

The 9-1-1 telecommunicator is the first person on the scene of an emergency. Our goal is to ensure these individuals have the tools and skills required to facilitate a quality response. The District's Education and Training Program continues to expand with the addition of multiple classes on Texas Commission on Law Enforcement (TCOLE) mandated TCIC/NCIC and TLETS training. A budget increase of 2.51 percent is proposed for FY2020 to provide additional educational opportunities for 9-1-1 telecommunicators, to include additional instruction on cyber security awareness and courses to combat the physical and emotional fatigue often experienced by PSAP personnel.

In addition to the implementation of an NSOC, other proposed FY2020 capital expenditures include a project to enhance the 9-1-1 network infrastructure at the Quarry Run Regional Operations Center for additional 9-1-1 system diversity and to provide increased operational flexibility during contingent operations. The current storage device architecture housing administrative and mission critical GIS data is approximately fifteen (15) years old. Funds are proposed to upgrade to a new data storage platform and migrate data to the new devices. Overall, funding for capital projects in the upcoming fiscal year decreased to \$3,491,300. This represents a 20.13 percent reduction in capital expenditures over the current budget year.

To maintain the District's pay-as-you-go policy and underwrite Capital Reserves, \$1,935,000 will be transferred from Bexar Metro's fund balance to Capital Reserve accounts. Designated Capital Reserves are encumbered to fund capital replacement of 9-1-1 and other mission critical systems on a five-year cycle, support information technology upgrades, and provide funding for facility capital improvements.

EXPENDITURES:

The FY2020 budget total is \$16,971,153. The budget includes \$13,479,853 for O&M and \$3,491,300 for capital improvements. Total proposed FY2020 expenditures reflect an increase of 17.25 percent, \$3,096,653, over the current budget year, driven predominantly by O&M costs attributed to the NGCS project and launch of cyber security programs.

This budget matches projected revenue and expense as required by Texas law. To ensure responsiveness and operational flexibility, the Executive Director may authorize the transfer of funds among budget line items if the overall annual budget amount remains unchanged.

Proposed Fiscal Year 2020 Budget

Revenue

Wireline Service Fees	\$ 4,217,508
Wireless Service Fees	\$ 11,200,000
Interest Earned	\$ 228,500
Transfer from Reserves	\$ 1,012,645
Data Center Revenue	\$ 297,600
Miscellaneous Revenue	\$ <u>14,900</u>
Total Available Funds	\$ 16,971,153

Proposed Fiscal Year 2020 Operations & Maintenance

Expense

Personnel	\$ 3,164,046
Operations	\$ 7,936,782
Facilities	\$ 1,715,525
Education & Training	\$ 163,500
Contingencies	\$ <u>500,000</u>
Total O&M Expense	\$ 13,479,853

Proposed Fiscal Year 2020 Capital Budget


PSAP Upgrades	\$ 20,000
Saddletree Facility	\$ 115,000
Mission Critical Communications	\$ 535,000
IT/Network Systems	\$ 878,800
Quarry Run Facility	\$ 7,500
Transfer to Capital Reserves	\$ <u>1,935,000</u>
Total Capital Expense	\$ 3,491,300

Total FY2020 Budget \$ 16,971,153

BEXAR METRO 9-1-1 NETWORK

Approved by the Bexar Metro Board this Twenty Second Day of May 2019.

By:
Name:
Title:


James C. Hasslocher
Chairman