

Information Technology Department

Mission

To provide the city with a telecommunications infrastructure capable of handling current and future technology needs. Provide accurate and timely information systems and technical support to all city departments and agencies and ultimately to its customers, the residents of Newton.

The Information Technology Department works with every department in the City to deliver infrastructure, equipment, phone services, Internet and critical access while protecting the data of our constituents and staff.

Our projects are greatly varied:

- Lead and primary implementor in the Financial system migration into Munis.
- Took over the phone system four years ago and replaced an aging 20-year-old system with state-of-the-art (VoIP) Voice over IP technology.
- Review phone bills to enable reducing monthly land line costs by nearly 25% and counting.
- Replaced nine copper trunk lines with modern Internet-based technology and anticipate further savings every month.
- Replaced projection systems in our conference rooms with smart TVs for ease of participation.
- Launched a phishing awareness campaign to raise awareness of anybody with a NewtonMa.gov email account.
- Developed custom applications for Public Safety, Elections and internal document tracking.
- Assist training in the maintenance of the City website.
- Responsible for the home page slide shows as well as the emergency notification banner.
- Our Geographic Information Systems administration is so much more than maps; the layers of information determine everything from recycling routes to sidewalk snow removal to tree canopies and even our fiber routes.
- Updating our licenses for Microsoft Office from 2010 to a subscription format for Office 2016.
- Working with the City Council, we will install state-of-the-art video display system installed in the Council Chambers by the end of the summer.
- Continue to deliver superb desktop support to approximately 550 PCs in all municipal buildings.
- Maintain strong working relationships with other IT entities including the School Department and the Fire and Wires Divisions.
- Oversaw a consolidation of listservs into one master Constant Contact account.
- Actively participate in the newly formed Public Information Officer group to assist in the delivery of timely messages in a myriad of delivery options during both emergency and non-emergency situations.

The **Information Technology Department** has evolved dramatically over the past five years. Our administrators specialize in desktop support, web development, Geographic Information Systems, routing and networking, Structured Query Language (SQL), security and even social media.

- The biggest challenge to IT this year and next is the phased migration of our financial system from Finance Plus into Tyler Technology's Munis product. This project is taking up nearly 90% of all working hours of two IT staff and is capably led by **Robert Moss**.

- We have added to the network administrators ranks to handle the gap created by the Munis project and to make sure our department continues to support our user base. With oversight and leadership by **Rachel Poston**, the desktop support team is extremely organized, communicates effectively even when on the run, and performs equally well as a team or as individuals. Rachel's leadership in our phishing awareness campaign has proven invaluable during the past fiscal year. Coupled with our physical security, antivirus subscriptions and strong policies, we are in a strong position.

- Deputy Director **Gregory Ansaldi** is immersed in all IT projects. His ability to become a subject matter expert on any topic is what makes the IT Department so successful. Greg brings critical thinking to our department.

- Our web developer, **Rufen Liao** has written noteworthy applications to reduce incoming non-emergency calls to the dispatch center by alarm companies as well as automating census data collection for many people with no change on their demographics. We anticipate migrating away from Civica for our website in the next year. This responsibility will require Rufen's admirable skill set including deep level coding, comprehension and knowledge sharing, organizational skills and assistance in migrating data.

- The ongoing work through the installation of the fiber network and the subsequent multi-

purposing opportunities has driven out technology. Every employee be they municipal, public safety, school student or teacher has benefited. **Eric Hutchinson**, our VoIP/Router specialist has truly stepped up in applying new technologies to utilize the many opportunities created by the city-wide fiber network. The network supports the phone system, security surveillance video from many City buildings and our data. Our city-owned fiber network now supports our public safety radio systems. We are prepared to support DPW when they create a new radio system.

- **Doug Greenfield** is the person behind our Geographic Information System. GIS has increased its web footprint with new and improved applications for viewing and downloading data. The goal is to provide staff and residents with easy and fast access to our data from anywhere. We have coordinated our work flows with many widely used software applications such as the Assessor's database, PeopleGIS, StreetScan and various school packages. The system has supported many projects, most notably zoning reform, school redistricting, evaluating solar sites and planning for major development projects.

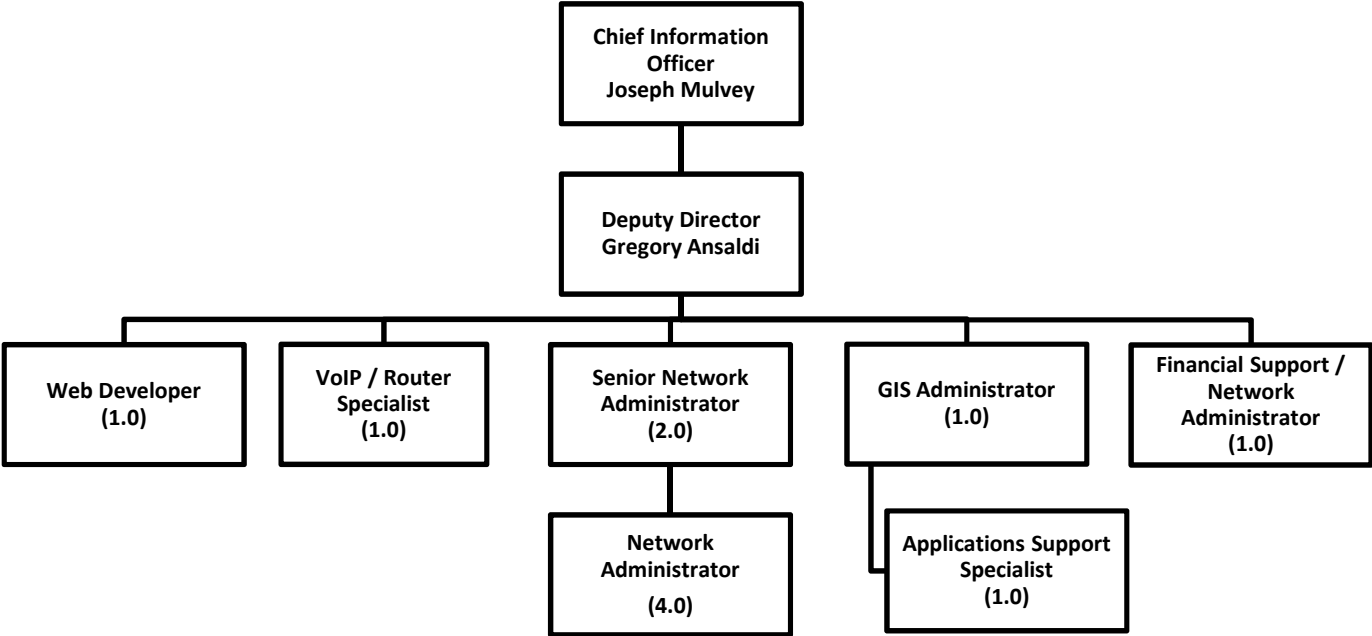
The IT department is a well-rounded group of individuals who work well as a team: resilience, professionalism, and dedication are all key traits that contribute to make IT one of the most reliable departments in the City.

Our budget requests remain stable and have only increased marginally to maintain the exceptional services expected of our department.

Joseph P. Mulvey

Chief Information Officer

INFORMATION TECHNOLOGY



Financial and Operating Highlights

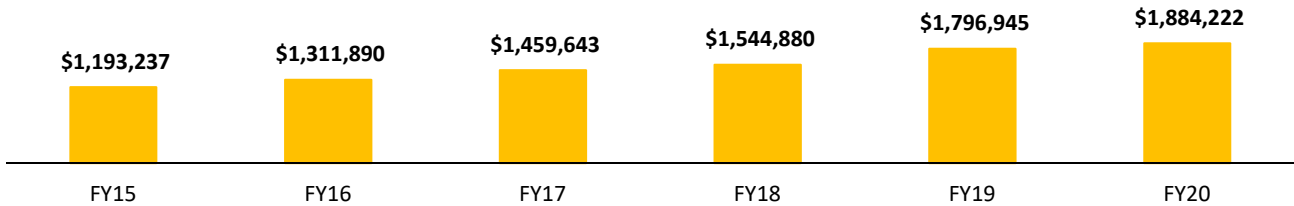
Financial Highlights

	Actual			Adj Budget		Proposed
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Expenditure by Department						
Administration	\$ 280,531	\$ 276,365	\$ 315,979	\$ 305,701	\$ 303,104	\$ 314,872
Micro/Network	\$ 593,804	\$ 707,570	\$ 774,556	\$ 822,753	\$ 1,033,101	\$ 1,091,350
Systems Program	\$ 187,532	\$ 192,331	\$ 228,191	\$ 276,616	\$ 312,886	\$ 324,883
GIS	\$ 131,370	\$ 135,624	\$ 140,917	\$ 139,810	\$ 147,854	\$ 153,117
Total	\$ 1,193,237	\$ 1,311,890	\$ 1,459,643	\$ 1,544,880	\$ 1,796,945	\$ 1,884,222
% Incr		9.94%	11.26%	5.84%	16.32%	4.86%

Personnel

Full-Time Employees	9	11	12	12	13	13
Part-Time Employees	0	0	1	1	0	0
Total	9	11	13	13	13	13

Total IT Expenditures



Operating Highlights

Municipal Email Accts	839
Email Rec.Last 6 mos	1,373,148

Storage Area Network

Total Space	21.6 TB
Used Space	18.3 TB
Available Space	3.29 TB
Virtual Servers Use	10.37 TB

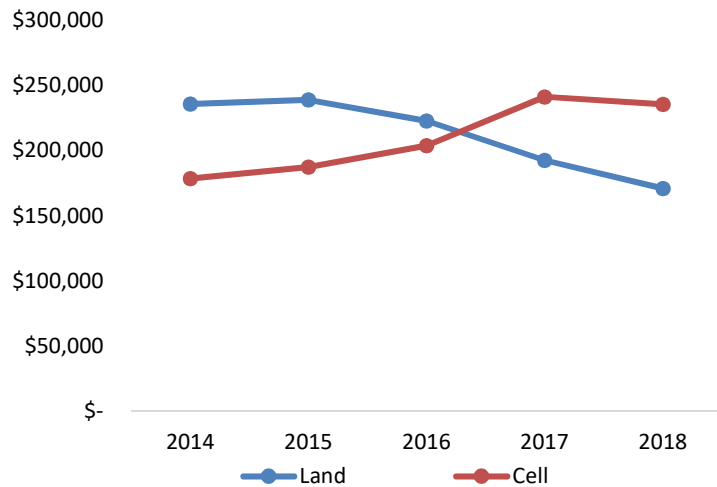
Wide Area Network

Buildings on City Fiber	62
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Website

Visits last year	535,000
Sessions last year	1,200,000
Homepage Visits	400,000

Annual Costs, Cell & Landline



Information Technology Department

Fiscal Year 2020 Outcomes and Strategies

Outcome 1

Stay on Track, on Time and under Budget on the Financial System Upgrade

By far the biggest technology challenge facing the City today has been the consolidation of our dual financial systems into a modern, forward facing, single vendor solution. Since 1995 we have maintained two financial systems: Tyler Technology's Munis for receivables and

Central Square's Finance Plus for accounting, payroll, benefits and procurement. By consolidating with one system, we eliminate the maintenance of software bridges, mounting customizations, a company providing diminished support staff while having a wonderful opportunity to rebuild our data to achieve better efficiency and security.

We will roll out the accounting and procurement modules in early June 2019. While we will balance the books one last time through Finance Plus, we will process much in parallel during these final weeks into July 1. We will also be converting the receivables (Real Estate, Personal Property, Motor Vehicle and Boat Excise as well as Utility Billing) by July 1.

We meet bi-weekly with the Tyler project manager to discuss progress, red flags and next steps. We meet online for full days of preparation, questions and answers, table population and training approximately 6 days per month. In between, we are charged with dozens of tasks to be addressed prior to each push forward. We report regularly to the Mayor's Office with a bullet list of where we stand.

As has been observed by many, the functionality of the City website has not kept up with the times. The lack of searchability is particularly frustrating.

In fiscal year 2020, we will evaluate Vision as well as other options as the solution. We will either implement Vision in FY2020 or another software package in FY2021 – FY2022.

Outcome 2

Replace our Website

Information Technology Department

Fiscal Year 2020 Outcomes and Strategies

Outcome 3

Reduce Monthly Costs for City Landlines and Cell Phones

In 2014 the IT Department assisted in the consolidation of all City cell phones into a state contract using Verizon. At that time, we brought 314 phones into a shared plan that allowed better oversight and administration and enabled consistency in billing. Since that time, we have doubled our cell subscription devices.

With the advent of 5G technology, we are concerned that upgrading the non-compliant equipment could exacerbate our monthly costs.

We propose working with Verizon, the Mayor, Purchasing, Police, Fire, Public Works, Public Buildings, Inspectional Services and Parks & Recreation to create a policy that builds a framework to minimize costs without inhibiting efficiency and productivity.

Meanwhile, we have successfully consolidated our landlines by eliminating hundreds of unused Centrex lines. We have converted our ten PRI lines at six locations into a cost-effective three location solution founded on current technology. We have seen our monthly landlines bills reduced by nearly 25%. We strive to continue to use technology for further consolidation without sacrificing service or quality.

Security measures must be applied intelligently at all levels of our network. From physical access in our many locations, to border gateways and routers, antivirus subscriptions on our personal computers and servers.

Employee awareness and phishing campaigns have proven their worth and we will continue these practices. Some of our practices are subscription based. We renew and stay current. Some of our hardware is duplicated for redundancy. Our data center is duplicated off site. Our phishing campaigns are getting tedious to some staff however we are seeing a fantastic decrease in errant clicking of bad links as compared to our baseline from September of 2018. Staff are the weakest link in security and education and constant reminders are our best defense.

We rely more and more on our Active Directory system to protect our data. We are preparing to implement a more sophisticated password system comparable to requirements set forth in the financial industry. The bottom line for this outcome is to continue to work towards another year in which our data, constituents and employees are secure and we are not hacked, compromised or in any way adversely impacted by outside forces.

Outcome 4

Security: Continue to Protect Our Data and Networks using Hardware, Software, Awareness Training and Employee Education

FUND: 01 - GENERAL FUND
DEPARTMENT: 111 - INFORMATION TECHNOLOGY

CITY OF NEWTON BUDGET
DEPARTMENT LEGAL LEVEL OF CONTROL

	ACTUAL 2017	ACTUAL 2018	AMENDED 2019	YTD 4/11/2019	RECOMMENDED 2020	CHANGE 2019 to 2020
INFORMATION TECHNOLOGY SUMMARY						
51 - PERSONAL SERVICES	901,380	943,875	1,092,177	817,414	1,147,148	54,971
52 - EXPENSES	276,519	320,080	380,137	299,557	393,303	13,166
58 - DEBT AND CAPITAL	123,791	124,788	125,000	101,361	125,000	0
57 - FRINGE BENEFITS	157,953	156,136	199,631	150,927	218,771	19,140
TOTAL DEPARTMENT	1,459,643	1,544,879	1,796,945	1,369,258	1,884,222	87,277
IT ADMINISTRATION						
51 - PERSONAL SERVICES	261,576	250,812	242,793	190,288	251,918	9,126
52 - EXPENSES	12,277	13,624	17,862	10,145	16,820	-1,042
57 - FRINGE BENEFITS	42,127	41,264	45,160	34,050	46,134	974
TOTAL IT ADMINISTRATION	315,979	305,701	305,815	234,483	314,872	9,058
MICRO/NETWORK SVS						
51 - PERSONAL SERVICES	538,007	588,489	741,704	545,046	783,455	41,751
52 - EXPENSES	15,456	13,500	29,290	28,120	31,500	2,210
58 - DEBT AND CAPITAL	123,791	124,788	125,000	101,361	125,000	0
57 - FRINGE BENEFITS	97,302	95,975	134,397	101,226	151,395	16,998
TOTAL MICRO/NETWORK SVS	774,556	822,753	1,030,391	775,753	1,091,350	60,959
SYSTEMS PROGRAMMING						
52 - EXPENSES	228,191	276,616	312,886	241,420	324,883	11,997
TOTAL SYSTEMS PROGRAMMING	228,191	276,616	312,886	241,420	324,883	11,997
GIS ADMINISTRATION						
51 - PERSONAL SERVICES	101,797	104,573	107,680	82,080	111,775	4,095
52 - EXPENSES	20,596	16,339	20,100	19,871	20,100	0
57 - FRINGE BENEFITS	18,524	18,897	20,073	15,651	21,242	1,169
TOTAL GIS ADMINISTRATION	140,917	139,810	147,854	117,603	153,117	5,264

FUND: 01 - GENERAL FUND
DEPARTMENT: 111 - INFORMATION TECHNOLOGY

CITY OF NEWTON BUDGET
DEPARTMENTAL DETAIL

	ACTUAL FY2017	ACTUAL FY2018	AMENDED 2019	YTD 4/11/2019	RECOMMENDED 2020	CHANGE 2019 to 2020
111 - INFORMATION TECHNOLOGY						
0111101 - IT ADMINISTRATION						
PERSONAL SERVICES						
511001 FULL TIME SALARIES	225,448	231,898	238,293	183,328	247,418	9,126
511101 PART TIME < 20 HRS/WK	34,178	15,414	0	3,960	0	0
514001 LONGEVITY	1,950	3,500	4,500	3,000	4,500	0
TOTAL PERSONAL SERVICES	261,576	250,812	242,793	190,288	251,918	9,126
EXPENSES						
5274 RENTAL - EQUIPMENT	1,594	1,522	1,830	1,015	1,830	0
5319 TRAINING EXPENSES	4,718	5,000	7,710	1,710	5,000	-2,710
53401 TELEPHONE	84	109	200	66	150	-50
53402 CELLULAR TELEPHONES	1,239	3,153	3,000	2,945	5,000	2,000
5341 POSTAGE	16	0	20	7	20	0
5342 PRINTING	0	0	20	0	20	0
5420 OFFICE SUPPLIES	3,991	2,525	4,177	4,177	3,500	-677
5480 GASOLINE	0	0	29	29	0	-29
5592 BOOKS/MANUALS/PERIODI	400	422	4	0	400	396
5711 IN-STATE CONFERENCES	60	536	271	0	300	29
5730 DUES & SUBSCRIPTIONS	175	357	600	195	600	0
TOTAL EXPENSES	12,277	13,624	17,862	10,145	16,820	-1,042
FRINGE BENEFITS						
57DENTAL DENTAL INSURANCE	517	538	560	430	582	22
57HLTH HEALTH INSURANCE	37,876	37,147	40,966	30,906	41,786	820
57LIFE BASIC LIFE INSURANCE	113	113	114	85	114	0
57MEDA MEDICARE PAYROLL TAX	3,620	3,466	3,520	2,628	3,652	132
TOTAL FRINGE BENEFITS	42,127	41,264	45,160	34,050	46,134	974
TOTAL IT ADMINISTRATION	315,979	305,701	305,815	234,483	314,872	9,058

CITY OF NEWTON BUDGET DEPARTMENTAL DETAIL
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		ACTUAL	ACTUAL	AMENDED	YTD	RECOMMENDED	CHANGE
		FY2017	FY2018	2019	4/11/2019	2020	2019 to 2020
0111102 - MICRO/NETWORK SVS							
PERSONAL SERVICES							
511001	FULL TIME SALARIES	534,357	583,089	734,304	538,746	767,555	33,251
514001	LONGEVITY	2,650	4,550	5,400	5,500	5,400	0
514309	OTHER STIPENDS	0	0	0	0	10,000	10,000
515005	BONUSES	0	350	0	300	0	0
515102	CLEANING ALLOWANCE	1,000	500	2,000	500	500	-1,500
TOTAL PERSONAL SERVICES		538,007	588,489	741,704	545,046	783,455	41,751
EXPENSES							
52401	OFFICE EQUIPMENT R-M	13,500	13,500	13,500	13,500	13,500	0
52410	SOFTWARE MAINTENANC	1,956	0	15,258	14,589	18,000	2,742
5321	TUITION ASSISTANCE	0	0	500	0	0	-500
5480	GASOLINE	0	0	31	31	0	-31
TOTAL EXPENSES		15,456	13,500	29,290	28,120	31,500	2,210
FRINGE BENEFITS							
57DENTAL	DENTAL INSURANCE	2,542	2,585	2,692	2,660	3,960	1,268
57HLTH	HEALTH INSURANCE	80,531	78,825	109,795	83,476	124,119	14,324
57LIFE	BASIC LIFE INSURANCE	113	113	114	146	171	57
57MEDA	MEDICARE PAYROLL TAX	7,284	8,018	10,733	7,338	11,197	464
57OPEB	OPEB CONTRIBUTION	6,832	6,434	11,063	7,606	11,948	885
TOTAL FRINGE BENEFITS		97,302	95,975	134,397	101,226	151,395	16,998
DEBT AND CAPITAL							
58511	COMPUTER SERVER HAR	9,915	10,072	10,000	9,431	10,000	0
585111	PC HARDWARE-ADMIN	51,774	49,795	50,000	49,247	50,000	0
58512	COMPUTER SERVER SOFT	47,116	50,134	50,000	33,454	50,000	0
585121	PC SOFTWARE-ADMIN	14,986	14,787	15,000	9,228	15,000	0
TOTAL DEBT AND CAPITAL		123,791	124,788	125,000	101,361	125,000	0
TOTAL MICRO/NETWORK SVS		774,556	822,753	1,030,391	775,753	1,091,350	60,959
0111103 - SYSTEMS PROGRAMMING							
EXPENSES							
52401A	GRANICUS/CIVIC R&M	0	27,849	29,700	9,410	29,700	0
52401B	SAN HARDWARE M&S	5,465	20,000	20,000	0	20,000	0
52401C	SAN SOFTWARE M&S	0	12,000	12,000	0	12,000	0
52410	SOFTWARE MAINTENANC	86,970	26,084	60,300	57,837	60,300	0
52410A	REVERSE 911 SOFTWARE	54,783	50,500	50,500	50,500	50,500	0
52410F	MS OUTLOOK SOFTWARE	39,534	83,048	78,000	78,000	90,000	12,000
52410H	FOIA SOFTWARE SUB & M	0	9,000	7,446	7,446	10,000	2,554
52410I	HYRELL SOFTWARE SUB&	0	6,600	6,600	6,600	9,600	3,000
53404	INTERNET ACCESS CHAR	30,267	30,633	28,783	26,195	28,783	0
5342	PRINTING	69	41	4	4	0	-4
5585	COMPUTER SUPPLIES	11,104	10,862	19,553	5,428	14,000	-5,553
TOTAL EXPENSES		228,191	276,616	312,886	241,420	324,883	11,997
TOTAL SYSTEMS PROGRAMMING		228,191	276,616	312,886	241,420	324,883	11,997

CITY OF NEWTON BUDGET DEPARTMENTAL DETAIL
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	ACTUAL FY2017	ACTUAL FY2018	AMENDED 2019	YTD 4/11/2019	RECOMMENDED 2020	CHANGE 2019 to 2020
0111104 - GIS ADMINISTRATION						
PERSONAL SERVICES						
511001 FULL TIME SALARIES	100,922	103,573	106,680	82,080	110,775	4,095
514001 LONGEVITY	875	1,000	1,000	0	1,000	0
TOTAL PERSONAL SERVICES	101,797	104,573	107,680	82,080	111,775	4,095
EXPENSES						
52410 SOFTWARE MAINTENANC	16,000	12,300	16,000	16,000	16,000	0
5319 TRAINING EXPENSES	0	665	100	0	100	0
5585 COMPUTER SUPPLIES	4,596	3,374	4,000	3,871	4,000	0
TOTAL EXPENSES	20,596	16,339	20,100	19,871	20,100	0
FRINGE BENEFITS						
57HLTH HEALTH INSURANCE	17,115	17,444	18,512	14,514	19,622	1,110
57MEDA MEDICARE PAYROLL TAX	1,409	1,453	1,561	1,138	1,620	59
TOTAL FRINGE BENEFITS	18,524	18,897	20,073	15,651	21,242	1,169
TOTAL GIS ADMINISTRATION	140,917	139,810	147,854	117,603	153,117	5,264
TOTAL INFORMATION TECHNOLOGY	1,459,643	1,544,879	1,796,945	1,369,258	1,884,222	87,277