

# Information Technology

## Mission Statement

To provide the City and its residents with the technology resources required to ensure employees are able to perform their duties swiftly and efficiently, and residents derive benefit from modern, secure technology.

## Fiscal Year 2017 Accomplishments

**Citywide Infrastructure** - Installed Voice-Over IP phones in Police Dispatch, Public Works at Crafts and Elliot, temporary Fire HQ. Added fiber to radio towers, added public wifi to new sites.

**Software Improvements** - Led the team to select replacement of antiquated Hansen system; expanded search tools.

**Security** - Continued vulnerability testing and training and security awareness for all municipal employees.

**Process Improvement** - Expanded use of online permitting using Community Plus.

**User Support and Training** - VoIP admin, Mobile Device Management Management, PWNie Express training.

## Fiscal Year 2018 Desired Outcomes

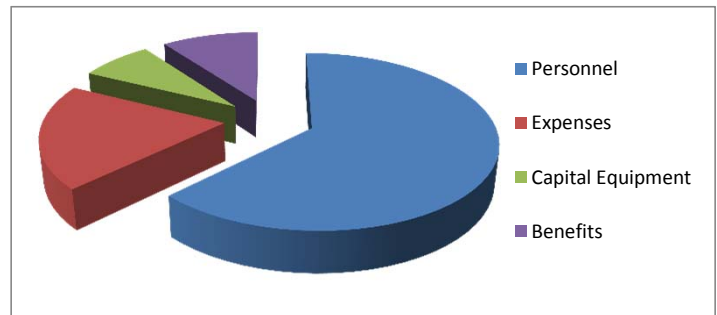
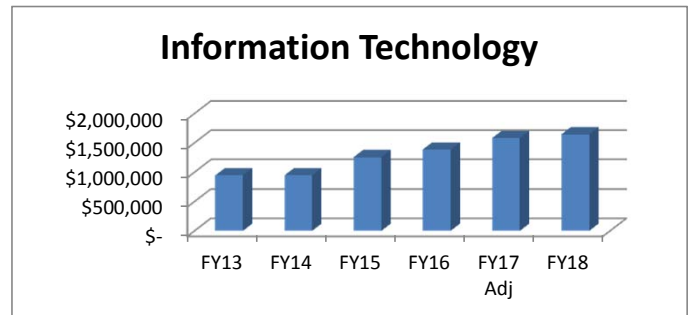
**Citywide Infrastructure** - Continue VoIP installation into all remaining public safety sites; acceptable video solution for council chambers Expand public wireless network.

**Software Improvements** - Implement People GIS to replace antiquated Hansen system; expand internal search tools.

**Security** - Enhance network monitoring with SMS and email notifications.

**Process Improvement** - Determine Financial System future; Continue vision of a 21st Century City Hall; expand field capabilities of inspectors in ISD and Fire.

**User Support and Training** - Assist in a smooth transition to onboard new Comptroller; Security Awareness training.



## Department Detail

	Actual				FY2016	-<Adj Budget-> FY2017	-<Proposed-> FY2018
	FY2013	FY2014	FY2015	FY2016			
<b>Expenditure</b>							
Personnel	\$564,970	\$560,191	\$737,101	\$817,579	\$1,002,373	\$1,033,026	
Expenses	\$158,199	\$183,625	\$226,278	\$232,656	\$279,970	\$321,553	
Capital Equipment	\$139,123	\$119,257	\$170,817	\$195,023	\$125,000	\$125,000	
Benefits	\$83,746	\$83,241	\$122,917	\$143,336	\$175,128	\$166,578	
<b>Total</b>	<b>\$946,038</b>	<b>\$946,314</b>	<b>\$1,257,113</b>	<b>\$1,388,594</b>	<b>\$1,582,471</b>	<b>\$1,646,157</b>	
<b>% Incr</b>		0.03%	32.84%	10.46%	13.96%	4.02%	
<b>Personnel</b>							
Full-Time	7	8	9	11	12	12	
Part-Time	1	0	0	0	1	1	
<b>Total</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>11</b>	<b>13</b>	<b>13</b>	

## FY2017 Accomplishments - Information Technology

### Outcome #1 - Improve City-Wide IT Infrastructure

#### Target

#### Result

#### Strategy 1: Install Voice over IP: Public Works; Crafts St and Eliot St Buildings

Eliot Street - Correct internal infrastructure; some sites exceed ethernet recommendations; corrective work to be completed.

Aug 2016

Completed

Procure equipment for Eliot Street, both buildings.

Oct 2016

Completed

Configure phones, hunt lines, software, smart phone interface, training.

Nov 2016

Completed

Crafts Street - Correct internal infrastructure; some sites exceed ethernet recommendations; corrective work to be completed.

Oct 2016

Completed

Procure equipment for Eliot Street, both buildings.

Nov 2016

Completed

Configure phones, hunt lines, software, smart phone interface, training.

Dec 2016

Completed, December 2016

#### Strategy 2: Convert Fire Stations 1 & 2 to VoIP

Correct internal infrastructure - rewiring by our Wires Division.

Jul 2016

Summer 2017

Procure equipment, configure.

Aug 2016

Summer 2017

Go live.

Aug 2016

Summer 2017

#### Strategy 3: Wireless Access Availability in Select Public Areas and Every Playground

##### Adjacent to a School

Build a virtual local area network (VLAN) spanning City and School networks.

Ongoing

Still in discussion mode, school still using some RCN fiber

Round One: Newton Centre using Health Dept fiber connections.

Underway

Completed

Round One: Waban Centre using City Fiber at Waban Public Library.

Jul 2016

Goal is 1st quarter of 2017

Round One: Lower Falls - via the Community Centre.

Jul 2016

Completed

Round One: Nonantum using City Fiber at Nonantum Public Library.

Aug 2016

Goal is 2nd quarter of 2017

Round One: Newton Highlands via City Fiber at Hyde

Sep 2016

Goal is 2nd quarter of 2017

Round One: Work With Schools to consider delivery to Elem School fields.

Underway

Still in discussion mode, school still using some RCN fiber

### Outcome #2 - Software

#### Target

#### Result

#### Hansen Replacement System - Cloud-based, GIS-centric, Mobile Device Friendly

Site visits and end user interviews.

Apr 2016

Completed

Write our RFP.

Apr 2016

Completed

Bid process.

May 2016

Completed

Review responses, interview candidates.

Jun 2016

Completed

Award and contract.

Jun 2016

Complete November 2016

Implementation plan.

Jul 2016

Implementation has begun as of December 2016

#### Strategy 2: Expand Internal Search Tools - Indexing Tool for Internal Department-Based

##### Data

Already in Law and City Council, add the following departments: HR, Executive and Planning and Development.

Jul 2016

Planning added, HR in process, Executive will be next

### Outcome #3 - Security

#### Target

#### Result

#### Strategy 1: Vulnerability Testing Follow Ups - Outside Contractor Tests our Firewalls, Routers and Searches for Weaknesses, Outdated Software, Forgotten Equipment, etc.

Annual penetration testing at City Hall and Police HQ.

Fall 2016

Penetration testing against Police and Phishing test against all City users

#### Strategy 2: Admin training and Security Awareness for all Employees

Use various methods of information delivery - email, phone calls, posters.

Ongoing

We use the Mailperson to broadcast awareness

#### Strategy 3: Purchase PWNie Express Software Device to Monitor our Network, Report Occurrences to a Cloud-Based Central System and Shutdown Access Systems that Try to Damage our Systems.

Purchase equipment and subscription for City Hall.

Apr 2016

Completed

Configure device and training.

May 2016

Completed

Go live.

Jul 2016

Completed

### Outcome #4 - Process Improvement

#### Target

#### Result

#### Strategy 1: eGov - Expand Online Permitting to Fire Prevention

Review requirements, populate tables, customize forms.

Jun 2016

Not yet begun

Testing and training.

Jul 2016

Not yet begun

Go live.

Jul 2016

Not yet begun

#### Strategy 2: Community Plus - Enable Plan Reviews - Input from ISD, Engineering, Police, Fire, Planning, Clerk, DPW

Review requirements, build hierarchy, create accounts, populate tables, and begin to customize forms.

Aug 2016

Not yet begun

Testing and training.

Aug 2016

Not yet begun

Go live.

Sep 2016

Not yet begun

### Outcome #5 - User Support & Training

#### Target

#### Result

#### Strategy 1: Administration Training for Staff

Training days for VoIP admin, mobile device management, PWNie Express software.

Ongoing

Training complete in these and SAN, VM, Civica/Granicus

#### Strategy 2: Continue to Offer Training to all Employees

We broadcast using the mailman and invite people to sign up. We also offer Civica 1 on 1 and group training.

Ongoing

We continue to offer training to new employees

## **FY2018 Desired Outcomes - Information Technology**

### **Outcome #1 - Improve City-Wide Infrastructure**

#### **Target**

#### **Strategy 1: Move City Hall Data Center to EOC**

Design a plan that does not interfere with business.	Ongoing
Test, revise and conduct additional testing.	Ongoing
Move smaller servers over one at a time; evaluate, respond and update.	July 2017
Migration of our Storage Area Network (SAN) and all virtual servers.	August 2017

### **Outcome #2 - Software**

#### **Target**

#### **Strategy 1: Enhance Field Use of our Permit System**

Setup tablets with reliable internet for use anywhere in the city.	July 2017
Reach out to additional permitting departments.	Ongoing

#### **Strategy 2: Implement Granicus' Speak Up**

Work with Granicus to setup backend.	July 2017
Go live, initially with a low impact project.	August 2017

### **Outcome #3 - Security**

#### **Target**

#### **Strategy 1: Penetration Testing**

PenTesting over the internet.	August 2017
PenTesting over wireless.	September 2017
Review results, adjust accordingly.	October 2017

#### **Strategy 2: Security Cameras at Senior Center**

3 Cameras for 300 Walnut Street.	August 2017
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#### **Strategy 3: Continue Training and Awareness**

Continue awareness training through mailperson messages.	Ongoing
Consider another phishing test.	Ongoing
Maintain all critical access points with current patches and updates.	Ongoing

### **Outcome #4 - Process Improvement**

#### **Target**

#### **Strategy 1: PeopleGIS - Continue Module-Based Implementation and Roll Out**

Populate tables.	April 2017
Create and modify forms.	May 2017
Training.	June 2017
Go live.	July 2017

#### **Strategy 2: Financial System Assessment**

Analyze financial systems to ensure we are meeting the needs of the city efficiently.	Ongoing
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#### **Strategy 3: Permitting System Assessment**

Enhance permitting system to ensure we are meeting the needs of the city efficiently.	Ongoing
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### **Outcome #5 - User Support & Training**

#### **Target**

#### **Strategy 1: VoIP to Police, Library, ISD, Clerk, Assessing, DPW & Engineering**

Rewire areas requiring suitable network cabling to nearest data closet.	August 2017
Procure and "pin" new phones.	August 2017
Place on Desks, run through training.	October 2017
Go live.	October 2017

#### **Strategy 2: IT Staff Training**

Ongoing training in administration of email, FOIA, SAN, virtualization, VoIP.	Ongoing
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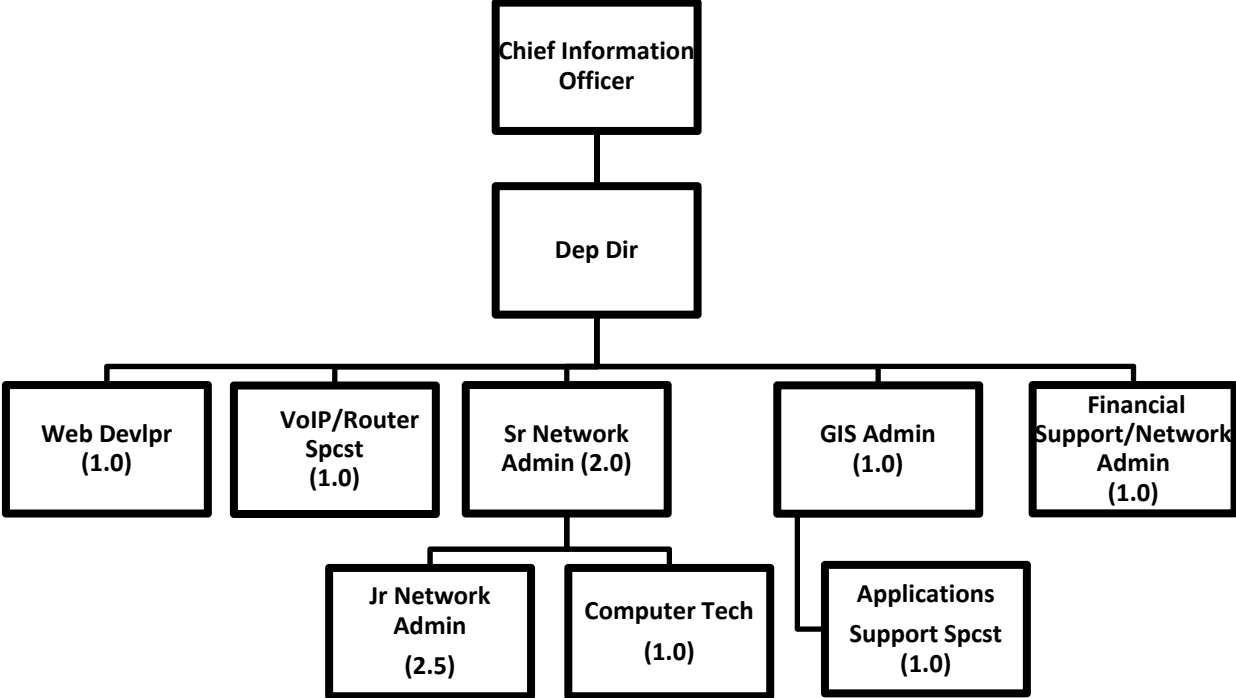
#### **Strategy 3: End User Training**

Offer training for Microsoft Office, Civica and GIS.	Ongoing
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#### **Strategy 4: Onboarding, Skill Checking Prior to Job Authorization**

Begin campaign to encourage computer skills testing for all new hires.	July 2017
Work with HR to create a statement, set minimum scores by job position.	August 2017
Work with all department to increase awareness of skill checking capability.	September 2017

# INFORMATION TECHNOLOGY



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

CITY OF NEWTON BUDGET  
DEPARTMENT LEGAL LEVEL OF CONTROL

	ACTUAL 2015	ACTUAL 2016	AMENDED 2017	YTD 4/4/2017	RECOMMENDED 2018	CHANGE 2017 to 2018
<b>INFORMATION TECHNOLOGY SUMMARY</b>						
51 - PERSONAL SERVICES	731,803	816,365	1,002,373	664,106	1,033,026	30,653
52 - EXPENSES	226,778	232,656	279,970	233,059	321,553	41,583
58 - DEBT AND CAPITAL	112,217	119,642	125,000	118,083	125,000	0
57 - FRINGE BENEFITS	122,438	143,228	175,128	116,065	166,578	-8,550
<b>TOTAL DEPARTMENT</b>	<b>1,193,237</b>	<b>1,311,891</b>	<b>1,582,471</b>	<b>1,131,313</b>	<b>1,646,157</b>	<b>63,686</b>
<b>IT ADMINISTRATION</b>						
51 - PERSONAL SERVICES	231,348	227,889	227,398	191,128	270,470	43,072
52 - EXPENSES	9,375	7,955	12,870	11,850	12,570	-300
57 - FRINGE BENEFITS	39,808	40,521	41,804	30,774	43,964	2,160
<b>TOTAL IT ADMINISTRATION</b>	<b>280,531</b>	<b>276,365</b>	<b>282,072</b>	<b>233,753</b>	<b>327,004</b>	<b>44,932</b>
<b>MICRO/NETWORK SVS</b>						
51 - PERSONAL SERVICES	404,565	489,255	673,179	398,248	658,005	-15,174
52 - EXPENSES	12,000	13,968	16,187	16,187	13,500	-2,687
58 - DEBT AND CAPITAL	112,217	119,642	125,000	118,083	125,000	0
57 - FRINGE BENEFITS	65,022	84,705	114,733	71,751	103,299	-11,435
<b>TOTAL MICRO/NETWORK SVS</b>	<b>593,804</b>	<b>707,570</b>	<b>929,099</b>	<b>604,270</b>	<b>899,803</b>	<b>-29,296</b>
<b>SYSTEMS PROGRAMMING</b>						
52 - EXPENSES	187,532	192,331	230,313	184,432	274,883	44,570
<b>TOTAL SYSTEMS PROGRAMMING</b>	<b>187,532</b>	<b>192,331</b>	<b>230,313</b>	<b>184,432</b>	<b>274,883</b>	<b>44,570</b>
<b>GIS ADMINISTRATION</b>						
51 - PERSONAL SERVICES	95,890	99,221	101,797	74,730	104,551	2,754
52 - EXPENSES	17,871	18,402	20,600	20,589	20,600	0
57 - FRINGE BENEFITS	17,608	18,002	18,591	13,540	19,316	725
<b>TOTAL GIS ADMINISTRATION</b>	<b>131,370</b>	<b>135,624</b>	<b>140,988</b>	<b>108,859</b>	<b>144,467</b>	<b>3,479</b>

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

CITY OF NEWTON BUDGET  
DEPARTMENTAL DETAIL

	ACTUAL FY2015	ACTUAL FY2016	AMENDED 2017	YTD 4/4/2017	RECOMMENDED 2018	CHANGE 2017 to 2018
<b>111 - INFORMATION TECHNOLOGY</b>						
<b>0111101 - IT ADMINISTRATION</b>						
<b>PERSONAL SERVICES</b>						
511001 FULL TIME SALARIES	229,498	218,041	225,448	164,983	231,353	5,905
511101 PART TIME < 20 HRS/WK	0	7,998	0	25,270	35,617	35,617
514001 LONGEVITY	1,850	1,850	1,950	875	3,500	1,550
<b>TOTAL PERSONAL SERVICES</b>	<b>231,348</b>	<b>227,889</b>	<b>227,398</b>	<b>191,128</b>	<b>270,470</b>	<b>43,072</b>
<b>EXPENSES</b>						
5274 RENTAL - EQUIPMENT	1,739	1,739	1,778	1,087	1,830	52
5319 TRAINING EXPENSES	3,438	4,628	5,000	5,000	5,000	0
53401 TELEPHONE	144	144	278	69	200	-78
53402 CELLULAR TELEPHONES	495	460	1,119	1,119	1,200	81
5341 POSTAGE	9	1	20	3	20	0
5342 PRINTING	23	9	20	0	20	0
5420 OFFICE SUPPLIES	2,772	0	4,000	3,918	3,000	-1,000
5592 BOOKS/MANUALS/PERIOD	372	380	400	400	400	0
5710 VEHICLE USE REIMBURSE	0	0	20	20	0	-20
5711 IN-STATE CONFERENCES	238	0	60	60	300	240
5730 DUES & SUBSCRIPTIONS	145	594	175	175	600	425
<b>TOTAL EXPENSES</b>	<b>9,375</b>	<b>7,955</b>	<b>12,870</b>	<b>11,850</b>	<b>12,570</b>	<b>-300</b>
<b>FRINGE BENEFITS</b>						
57DENTAL DENTAL INSURANCE	598	507	517	378	538	21
57HLTH HEALTH INSURANCE	35,917	36,463	37,876	27,678	39,390	1,514
57LIFE BASIC LIFE INSURANCE	113	113	114	76	114	0
57MEDA MEDICARE PAYROLL TAX	3,180	3,438	3,297	2,642	3,922	625
<b>TOTAL FRINGE BENEFITS</b>	<b>39,808</b>	<b>40,521</b>	<b>41,804</b>	<b>30,774</b>	<b>43,964</b>	<b>2,160</b>
<b>TOTAL IT ADMINISTRATION</b>	<b>280,531</b>	<b>276,365</b>	<b>282,072</b>	<b>233,753</b>	<b>327,004</b>	<b>44,932</b>

<b>CITY OF NEWTON BUDGET DEPARTMENTAL DETAIL</b>
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		ACTUAL	ACTUAL	AMENDED	YTD	RECOMMENDED	CHANGE
		FY2015	FY2016	2017	4/4/2017	2018	2017 to 2018
<b>0111102 - MICRO/NETWORK SVS</b>							
<b>PERSONAL SERVICES</b>							
511001	FULL TIME SALARIES	401,293	486,605	639,029	393,858	652,455	13,426
511101	PART TIME < 20 HRS/WK	0	0	30,000	0	0	-30,000
514001	LONGEVITY	1,650	1,650	2,650	2,650	4,550	1,900
515006	VACATION BUY BACK	622	0	0	740	0	0
515102	CLEANING ALLOWANCE	1,000	1,000	1,500	1,000	1,000	-500
<b>TOTAL PERSONAL SERVICES</b>		<b>404,565</b>	<b>489,255</b>	<b>673,179</b>	<b>398,248</b>	<b>658,005</b>	<b>-15,174</b>
<b>EXPENSES</b>							
52401	OFFICE EQUIPMENT R-M	12,000	13,968	13,500	13,500	13,500	0
5585	COMPUTER SUPPLIES	0	0	2,687	2,687	0	-2,687
<b>TOTAL EXPENSES</b>		<b>12,000</b>	<b>13,968</b>	<b>16,187</b>	<b>16,187</b>	<b>13,500</b>	<b>-2,687</b>
<b>FRINGE BENEFITS</b>							
57DENTAL	DENTAL INSURANCE	2,174	2,306	2,175	1,872	2,048	-127
57HLTH	HEALTH INSURANCE	53,060	70,011	92,552	59,287	82,859	-9,693
57LIFE	BASIC LIFE INSURANCE	137	113	114	76	114	0
57MEDA	MEDICARE PAYROLL TAX	5,615	6,526	9,325	5,384	7,729	-1,597
57OPEB	OPEB CONTRIBUTION	4,036	5,748	10,568	5,132	10,549	-19
<b>TOTAL FRINGE BENEFITS</b>		<b>65,022</b>	<b>84,705</b>	<b>114,733</b>	<b>71,751</b>	<b>103,299</b>	<b>-11,435</b>
<b>DEBT AND CAPITAL</b>							
58511	COMPUTER SERVER HAR	1,955	15,383	10,000	9,898	10,000	0
585111	PC HARDWARE-ADMIN	47,615	49,460	52,851	51,685	50,000	-2,851
58512	COMPUTER SERVER SOF	47,175	49,322	47,149	43,147	50,000	2,851
585121	PC SOFTWARE-ADMIN	15,471	5,477	15,000	13,354	15,000	0
<b>TOTAL DEBT AND CAPITAL</b>		<b>112,217</b>	<b>119,642</b>	<b>125,000</b>	<b>118,083</b>	<b>125,000</b>	<b>0</b>
<b>TOTAL MICRO/NETWORK SVS</b>		<b>593,804</b>	<b>707,570</b>	<b>929,099</b>	<b>604,270</b>	<b>899,803</b>	<b>-29,296</b>
<b>0111103 - SYSTEMS PROGRAMMING</b>							
<b>EXPENSES</b>							
52401A	GRANICUS/CIVIC R&M	0	0	0	0	30,000	30,000
52401B	SAN HARDWARE M&S	0	0	0	0	20,000	20,000
52401C	SAN SOFTWARE M&S	0	0	0	0	12,000	12,000
52410	SOFTWARE MAINTENANC	51,245	52,107	94,416	49,236	60,000	-34,416
52410A	REVERSE 911 SOFTWARE	64,478	64,478	54,783	54,783	54,783	0
52410F	MS OUTLOOK SOFTWARE	36,271	38,172	39,534	39,534	40,000	466
52410H	FOIA SOFTWARE SUB & M	0	0	0	0	10,000	10,000
52410I	HYRELL SOFTWARE SUB&	0	0	0	0	9,600	9,600
53404	INTERNET ACCESS CHAR	28,345	24,955	30,267	30,267	24,500	-5,767
5585	COMPUTER SUPPLIES	7,192	12,619	11,313	10,612	14,000	2,687
<b>TOTAL EXPENSES</b>		<b>187,532</b>	<b>192,331</b>	<b>230,313</b>	<b>184,432</b>	<b>274,883</b>	<b>44,570</b>
<b>TOTAL SYSTEMS PROGRAMMING</b>		<b>187,532</b>	<b>192,331</b>	<b>230,313</b>	<b>184,432</b>	<b>274,883</b>	<b>44,570</b>

<b>CITY OF NEWTON BUDGET DEPARTMENTAL DETAIL</b>
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	ACTUAL FY2015	ACTUAL FY2016	AMENDED 2017	YTD 4/4/2017	RECOMMENDED 2018	CHANGE 2017 to 2018
<b>0111104 - GIS ADMINISTRATION</b>						
<b>PERSONAL SERVICES</b>						
511001 FULL TIME SALARIES	95,115	98,346	100,922	73,855	103,551	2,629
514001 LONGEVITY	775	875	875	875	1,000	125
<b>TOTAL PERSONAL SERVICES</b>	<b>95,890</b>	<b>99,221</b>	<b>101,797</b>	<b>74,730</b>	<b>104,551</b>	<b>2,754</b>
<b>EXPENSES</b>						
52410 SOFTWARE MAINTENANC	13,398	15,576	16,000	16,000	16,000	0
5319 TRAINING EXPENSES	561	456	0	0	600	600
5585 COMPUTER SUPPLIES	3,912	2,369	4,600	4,589	4,000	-600
<b>TOTAL EXPENSES</b>	<b>17,871</b>	<b>18,402</b>	<b>20,600</b>	<b>20,589</b>	<b>20,600</b>	<b>0</b>
<b>FRINGE BENEFITS</b>						
57HLTH HEALTH INSURANCE	16,300	16,613	17,115	12,507	17,800	685
57MEDA MEDICARE PAYROLL TAX	1,308	1,389	1,476	1,033	1,516	40
<b>TOTAL FRINGE BENEFITS</b>	<b>17,608</b>	<b>18,002</b>	<b>18,591</b>	<b>13,540</b>	<b>19,316</b>	<b>725</b>
<b>TOTAL GIS ADMINISTRATION</b>	<b>131,370</b>	<b>135,624</b>	<b>140,988</b>	<b>108,859</b>	<b>144,467</b>	<b>3,479</b>
<b>TOTAL INFORMATION TECHNOLOGY</b>	<b>1,193,237</b>	<b>1,311,891</b>	<b>1,582,471</b>	<b>1,131,313</b>	<b>1,646,157</b>	<b>63,686</b>



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

**CITY OF NEWTON BUDGET  
PERSONAL SERVICES SUMMARY**

ACCOUNT	POSITION TITLE	2017			2018		
		RANGE	FTE	SALARY	RANGE	FTE	SALARY
511001	APPLICATIONS SPECIALIST	S6-9	1.0	54,472	S6-10	1.00	56,107
	CIO	H14-13	1.0	118,657	H14-15	1.00	122,224
	COMPUTER TECHNICIAN	S6-3	1.0	46,294	S6-3	1.00	46,294
	DEPUTY DIR, IT	H11-18	1.0	105,927	H11-20	1.00	109,128
	FIN SUPPORT/NETWORK ADM	H10-9	1.0	86,711	H10-11	1.00	89,312
	GIS ADMIN	H10-19	1.0	100,535	H10-21	1.00	103,551
	JR NETWORK ADMINISTRATO	H5-3	1.0	53,782	H5-5	1.00	55,386
	JR. NETWORK ADMINISTRAT	H5-3	1.0	53,782	H5-5	1.00	55,386
	SR. NETWORK ADMINISTRAT	H10-2	2.0	174,366	H10-2	2.00	177,253
	VOIP/ROUTER SPECIALIST	H10-18	1.0	99,049	H10-20	1.00	102,043
	WEB DEVELOPER	H7-8	1.0	68,622	H7-10	1.00	70,675
	<b>Account Totals:</b>		<b>12.0</b>	<b>962,198</b>		<b>12.00</b>	<b>987,359</b>
511101	JR. NETWORK ADMINISTRAT	QQQ	0.5	34,580	QQQ	0.49	35,617
	<b>Account Totals:</b>		<b>0.5</b>	<b>34,580</b>		<b>0.49</b>	<b>35,617</b>
	<b>Report Totals:</b>		<b>12.5</b>	<b>996,778</b>		<b>12.49</b>	<b>1,022,976</b>