



## Chapter 4 Implementation Plan

This chapter outlines a six-year work plan aimed at improving municipal operations and streamlining work processes. It summarizes the recommended project costs, and presents an attendant implementation timeline.

## Implementation Costs

*This implementation plan identifies a set of specific implementation projects, with an attendant schedule and cost estimates, aimed at achieving the City's IT goals.*

The cost estimates in this section provide the City of Annapolis with budget guidelines for the implementation projects outlined in chapter 3. In particular, these project cost estimates will aid Annapolis' IT decision making and budgeting within the context of the city's 2010 and 2011 structural budget deficits. PTI developed both low- and high-end cost estimates for new projects based on industry knowledge, best practices, market research, and PTI's recent experience with similar technology projects and procurements. The tables in this chapter present one-time, recurring and annualized costs for each project. The scope of this IT strategic plan did not include the definition of hard dollar benefits, or a return on investment analysis. Appendix E provides detailed project descriptions, costs, and cost assumptions.

### One-time and Annual Recurring Costs

One-time and recurring project costs present best available estimates based upon current assumptions and available pricing information, stated in 2010 dollars. Individual project cost estimates reflect total project budgets. The table on the following page illustrates one-time and recurring cost estimates for each recommended implementation project. The subsequent page presents average annualized costs over the next six years. In some instances, significant differences exist between the low-end and high-end estimates. In general, low-end estimates tend to reflect reduced scope, lower-cost technologies, and a greater reliance on internal labor. High-end estimates reflect a broader scope, higher-cost components and software, larger labor requirements, and generally include external consulting services for all or some of a project's implementation.

Costs do not include current city expenditures or already budgeted dollars, with the exception of \$350,000 the City has already budgeted for a new utility customer information system and \$350,000 for a new human resources/payroll system. These budgeted dollars are also footnoted under the subsequent tables. Project estimates *do include* costs associated with internal labor, based on fully-burdened hourly labor rates of \$39 for basic IT support and \$52 for business unit staff provided by the City. Recurring internal IT labor for supporting new and upgraded applications (projects 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, and 5.2) is incorporated as part of the recommended IT staffing increases within project 5.1. In addition, cost estimates for project 4.1 assume that the City will partner with a nearby public sector organization or contract with a third party for data center operations. Building a new city

facility to replace both the MIT data center and the APD data center for this project would cost between \$1M and \$2M.

### One-time and Annual Recurring Cost Estimates<sup>27,28</sup>

Cost Summary		One-Time		Recurring		Total Six-Year Cost	
		Low	High	Low	High	Low	High
<b>Goal 1: IT investments align with city strategic priorities</b>							
1.1	Develop and implement a formal citywide IT decision making process	\$ 8,000	\$ 26,000	\$ 6,000	\$ 9,000	\$ 42,000	\$ 78,000
1.2	Create an IT-specific capital improvement fund	\$ 13,000	\$ 38,000	\$ -	\$ -	\$ 13,000	\$ 38,000
1.3	Conduct an IT sourcing feasibility study	\$ 69,000	\$ 117,000	\$ -	\$ -	\$ 69,000	\$ 117,000
<b>Subtotal - Goal 1</b>		<b>\$ 90,000</b>	<b>\$ 181,000</b>	<b>\$ 6,000</b>	<b>\$ 9,000</b>	<b>\$ 124,000</b>	<b>\$ 233,000</b>
<b>Goal 2: Technology supports accessible and accountable government</b>							
2.1	Define IT performance measures	\$ 18,000	\$ 34,000	\$ 2,000	\$ 4,000	\$ 28,000	\$ 54,000
2.2	Evaluate potential CRM/311 solutions	\$ 27,000	\$ 90,000	\$ -	\$ -	\$ 27,000	\$ 90,000
2.3	Implement the preferred CRM/311 solution	\$ 83,000	\$ 328,000	\$ 1,000	\$ 24,000	\$ 87,000	\$ 406,000
<b>Subtotal - Goal 2</b>		<b>\$ 128,000</b>	<b>\$ 452,000</b>	<b>\$ 3,000</b>	<b>\$ 28,000</b>	<b>\$ 142,000</b>	<b>\$ 550,000</b>
<b>Goal 3: Information systems streamline city operations and improve service</b>							
3.1	Implement a new utility customer information management system	\$ 361,000	\$ 809,000	\$ 15,000	\$ 47,000	\$ 433,000	\$ 1,033,000
3.2	Implement a new human resources and payroll system	\$ 459,000	\$ 1,316,000	\$ 28,000	\$ 90,000	\$ 592,000	\$ 1,743,000
3.3	Implement a financial management system	\$ 1,121,000	\$ 3,194,000	\$ 66,000	\$ 130,000	\$ 1,319,000	\$ 3,584,000
3.4	Implement an electronic document management system	\$ 603,000	\$ 1,203,000	\$ 58,000	\$ 58,000	\$ 733,000	\$ 1,333,000
3.5	Implement a citywide maintenance management system	\$ 682,000	\$ 957,000	\$ 10,000	\$ 35,000	\$ 692,000	\$ 992,000
3.6	Pilot decision support/business intelligence software	\$ 81,000	\$ 180,000	\$ 2,000	\$ 8,000	\$ 82,000	\$ 186,000
<b>Subtotal - Goal 3</b>		<b>\$ 3,307,000</b>	<b>\$ 7,659,000</b>	<b>\$ 179,000</b>	<b>\$ 368,000</b>	<b>\$ 3,851,000</b>	<b>\$ 8,871,000</b>
<b>Goal 4: Technical infrastructure is secure, reliable, and cost effective</b>							
4.1	Utilize a professionally-designed data center to host core infrastructure	\$ 17,000	\$ 35,000	\$ 12,000	\$ 24,000	\$ 47,000	\$ 94,000
4.2	Revise disaster recovery plan	\$ 17,000	\$ 60,000	\$ 2,000	\$ 3,000	\$ 25,000	\$ 73,000
4.3	Define, fund and implement a formal technology replacement cycle	\$ 7,000	\$ 12,000	\$ 173,000	\$ 269,000	\$ 830,000	\$ 1,290,000
4.4	Conduct annual IT security audits and triennial assessments	\$ 21,000	\$ 61,000	\$ 16,000	\$ 33,000	\$ 101,000	\$ 226,000
<b>Subtotal - Goal 4</b>		<b>\$ 62,000</b>	<b>\$ 168,000</b>	<b>\$ 203,000</b>	<b>\$ 329,000</b>	<b>\$ 1,003,000</b>	<b>\$ 1,683,000</b>
<b>Goal 5: IT services are customer-oriented and responsive</b>							
5.1	Adopt new MIT organizational structure and increase staff	\$ 12,000	\$ 63,000	\$ 415,000	\$ 737,000	\$ 1,286,000	\$ 2,285,000
5.2	Establish a professional IT service desk	\$ 77,000	\$ 176,000	\$ 15,000	\$ 30,000	\$ 149,000	\$ 319,000
5.3	Train IT staff	\$ -	\$ -	\$ 38,000	\$ 76,000	\$ 218,000	\$ 437,000
5.4	Upgrade MIT workspace	\$ 50,000	\$ 93,000	\$ -	\$ -	\$ 49,000	\$ 93,000
5.5	Contract professional IT project management services	\$ 100,000	\$ 195,000	\$ 100,000	\$ 150,000	\$ 550,000	\$ 870,000
<b>Subtotal - Goal 5</b>		<b>\$ 239,000</b>	<b>\$ 527,000</b>	<b>\$ 568,000</b>	<b>\$ 993,000</b>	<b>\$ 2,252,000</b>	<b>\$ 4,004,000</b>
<b>Goal 6: City workforce is computer-literate and technology-enabled</b>							
6.1	Implement a technology training program for business users	\$ -	\$ -	\$ 180,000	\$ 360,000	\$ 720,000	\$ 1,440,000
6.2	Install indoor wireless access points at city facilities	\$ 160,000	\$ 354,000	\$ 26,000	\$ 53,000	\$ 271,000	\$ 579,000
<b>Subtotal - Goal 6</b>		<b>\$ 160,000</b>	<b>\$ 354,000</b>	<b>\$ 206,000</b>	<b>\$ 413,000</b>	<b>\$ 991,000</b>	<b>\$ 2,019,000</b>
<b>Total Cost</b>		<b>\$ 3,986,000</b>	<b>\$ 9,341,000</b>	<b>\$ 1,165,000</b>	<b>\$ 2,140,000</b>	<b>\$ 8,363,000</b>	<b>\$ 17,360,000</b>

Note: Costs are rounded to nearest thousand dollars

<sup>27</sup> The City of Annapolis has already budgeted \$350,000 for project 3.1 and \$350,000 for project 3.2.

<sup>28</sup> Project 4.1 assumes the City will partner with a nearby public sector organization or contract with a third party for data center operations. PTI estimates that building an entirely new city facility for project 4.1 would cost between \$1M and \$2M.

## Annualized Costs

The table below presents the estimated average annualized costs for each project, combining one-time and recurring costs based on the high-end estimates. Neither inflation, nor labor rate increases are factored into the estimates.

4

### Average Annualized Cost Estimates

Average Annualized Cost Summary						
Project	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Goal 1: IT investments align with city strategic priorities</b>						
1.1 Develop and implement a formal citywide IT decision making process	\$ 23,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000
1.2 Create an IT-specific capital improvement fund	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -
1.3 Conduct an IT sourcing feasibility study	\$ -	\$ 93,000	\$ -	\$ -	\$ -	\$ -
<b>Annual Subtotal - Goal 1</b>	<b>\$ 48,000</b>	<b>\$ 100,000</b>	<b>\$ 7,000</b>	<b>\$ 7,000</b>	<b>\$ 7,000</b>	<b>\$ 7,000</b>
<b>Goal 2: Technology supports accessible and accountable government</b>						
2.1 Define IT performance measures	\$ 26,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
2.2 Evaluate potential CRM/311 solutions	\$ -	\$ 59,000	\$ -	\$ -	\$ -	\$ -
2.3 Implement the preferred CRM/311 solution	\$ -	\$ -	\$ 209,000	\$ 13,000	\$ 13,000	\$ 13,000
<b>Annual Subtotal - Goal 2</b>	<b>\$ 26,000</b>	<b>\$ 62,000</b>	<b>\$ 212,000</b>	<b>\$ 16,000</b>	<b>\$ 16,000</b>	<b>\$ 16,000</b>
<b>Goal 3: Information systems streamline city operations and improve service</b>						
3.1 Implement a new utility customer information management system	\$ 439,000	\$ 170,000	\$ 31,000	\$ 31,000	\$ 31,000	\$ 31,000
3.2 Implement a new human resources and payroll system	\$ 665,000	\$ 266,000	\$ 59,000	\$ 59,000	\$ 59,000	\$ 59,000
3.3 Implement a financial management system	\$ -	\$ 712,000	\$ 1,445,000	\$ 98,000	\$ 98,000	\$ 98,000
3.4 Implement an electronic document management system	\$ -	\$ -	\$ 361,000	\$ 556,000	\$ 58,000	\$ 58,000
3.5 Implement a citywide maintenance management system	\$ -	\$ -	\$ -	\$ 271,000	\$ 549,000	\$ 22,000
3.6 Pilot decision support/business intelligence software	\$ -	\$ -	\$ -	\$ -	\$ 98,000	\$ 36,000
<b>Annual Subtotal - Goal 3</b>	<b>\$ 1,104,000</b>	<b>\$ 1,148,000</b>	<b>\$ 1,896,000</b>	<b>\$ 1,015,000</b>	<b>\$ 893,000</b>	<b>\$ 304,000</b>
<b>Goal 4: Technical infrastructure is secure, reliable, and cost effective</b>						
4.1 Utilize a professionally-designed data center to host core infrastructure	\$ -	\$ -	\$ 17,000	\$ 17,000	\$ 18,000	\$ 18,000
4.2 Revise disaster recovery plan	\$ 38,000	\$ 1,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
4.3 Define, fund and implement a formal technology replacement cycle	\$ 5,000	\$ 171,000	\$ 221,000	\$ 221,000	\$ 221,000	\$ 221,000
4.4 Conduct annual IT security audits and triennial assessments	\$ 41,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
<b>Annual Subtotal - Goal 4</b>	<b>\$ 84,000</b>	<b>\$ 197,000</b>	<b>\$ 265,000</b>	<b>\$ 265,000</b>	<b>\$ 266,000</b>	<b>\$ 266,000</b>
<b>Goal 5: IT services are customer-oriented and responsive</b>						
5.1 Adopt new MIT organizational structure and increase staff	\$ 58,000	\$ 115,000	\$ 230,000	\$ 346,000	\$ 461,000	\$ 576,000
5.2 Establish a professional IT service desk	\$ 85,000	\$ 59,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000
5.3 Train IT staff	\$ 43,000	\$ 57,000	\$ 57,000	\$ 57,000	\$ 57,000	\$ 57,000
5.4 Upgrade MIT workspace	\$ -	\$ 54,000	\$ 18,000	\$ -	\$ -	\$ -
5.5 Contract professional IT project management services	\$ 148,000	\$ 63,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
<b>Annual Subtotal - Goal 5</b>	<b>\$ 334,000</b>	<b>\$ 348,000</b>	<b>\$ 453,000</b>	<b>\$ 551,000</b>	<b>\$ 666,000</b>	<b>\$ 781,000</b>
<b>Goal 6: City workforce is computer-literate and technology-enabled</b>						
6.1 Implement a technology training program for business users	\$ -	\$ -	\$ 270,000	\$ 270,000	\$ 270,000	\$ 270,000
6.2 Install indoor wireless access points at city facilities	\$ -	\$ 267,000	\$ 39,000	\$ 39,000	\$ 39,000	\$ 39,000
<b>Annual Subtotal - Goal 6</b>	<b>\$ -</b>	<b>\$ 267,000</b>	<b>\$ 309,000</b>	<b>\$ 309,000</b>	<b>\$ 309,000</b>	<b>\$ 309,000</b>
<b>Projected Net New Funding Required</b>	<b>\$ 1,596,000</b>	<b>\$ 2,122,000</b>	<b>\$ 3,142,000</b>	<b>\$ 2,163,000</b>	<b>\$ 2,157,000</b>	<b>\$ 1,683,000</b>

Note: Costs are rounded to nearest thousand dollars

## Implementation Timeline

The Gantt chart below presents a projected timeline for this plan's defined implementation projects, developed in partnership with the City's project steering committee. Annapolis will need to periodically review and adjust this implementation timeline – based on resource constraints, changing business needs, and strategic priorities.

4

Projected Implementation Timeline

