

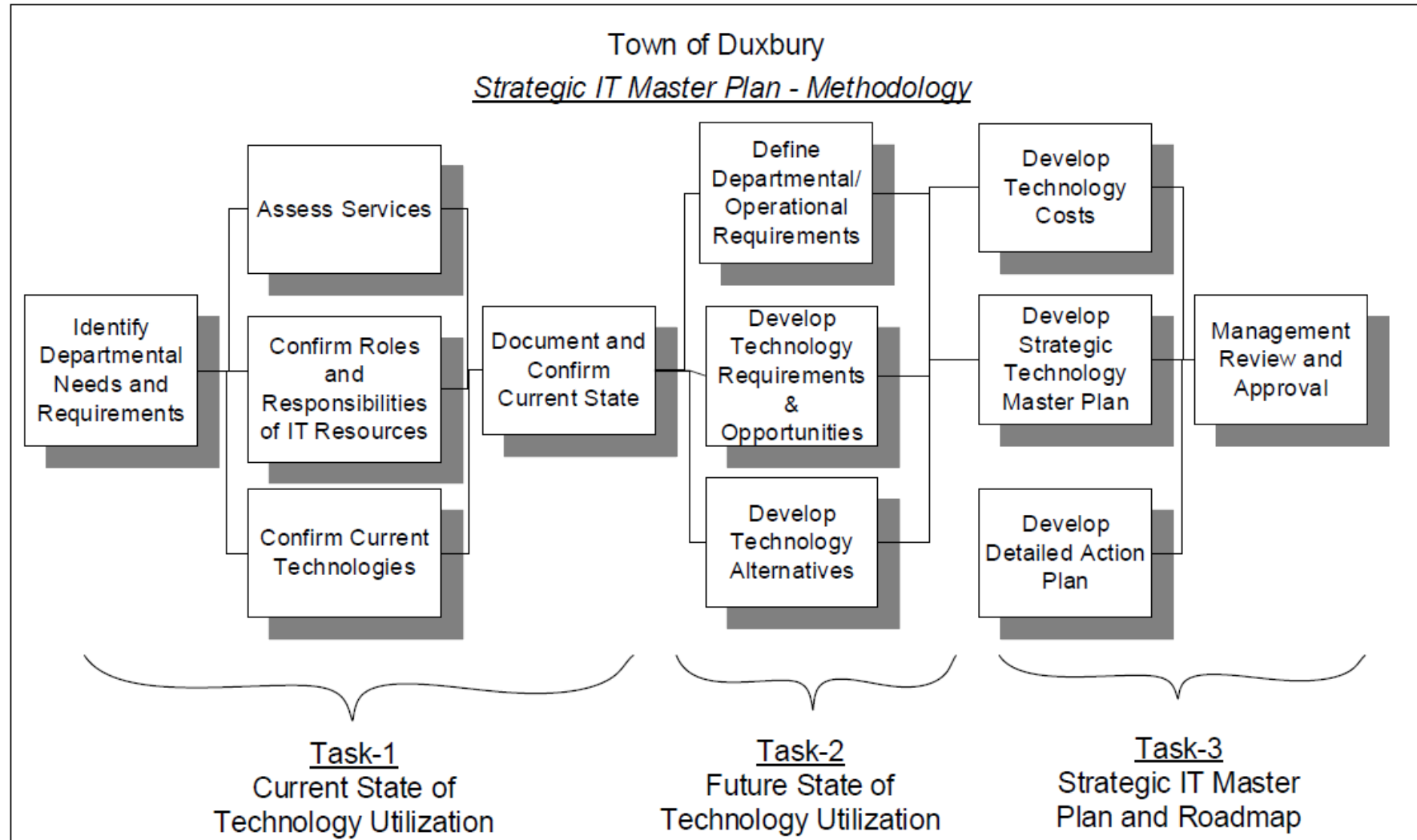


Town of Duxbury

Future State Goals & Objectives

Strategic IT Master Plan

Project Overview



General Findings:

- Multiple IT Departments/Outside Support groups maintaining the infrastructure within the municipality and schools
- IT Support is performed independently from one another
- Limited project governance structure
- No ongoing Cybersecurity Awareness or Training Program
- Limited backup or recovery strategy

General Findings (cont):

- Wireless network availability is inconsistent across Town
- Policies Policies/Procedures vary between the Town, School District, ROCCC, Council on Aging, and Library
- The current email system is causing problems for staff

Microsoft (MS) IT Optimization Assessment:

- Using Best In Industry Practices - Microsoft's IT Optimization Assessment was used to determine how close IT is to being a strategic asset for the Town/School organization(s)
- The Assessment measures the following major attributes:
 - A. Core Infrastructure Model
 - B. Business Productivity Optimization Model
 - C. Application Platform Optimization Model

Maturity Levels - Definitions

Best Practices Key			
<p>The basic IT infrastructure is characterized by manual, localized processes; minimal central control; and non-existent or un-enforced IT policies and standards regarding security, backup, image management and deployment, compliance, and other common IT standards.</p>	<p>The standardized infrastructure introduces controls through the use of standards and policies to manage desktops, mobile devices, and servers and how machines are introduced to the network.</p>	<p>The rationalized infrastructure is where the costs involved in managing desktops and servers are at their lowest and processes and policies have been optimized to begin playing a large role in supporting and expanding the business.</p>	<p>Customers with a dynamic infrastructure are fully aware of the strategic value that their infrastructure provides in helping them run their business efficiently and staying ahead of competitors.</p>
Basic	Standardized	Rationalized	Dynamic

MS IT Optimization Assessment (cont.):

A. Core Infrastructure Model

	Basic	Standardized	Rationalized	Dynamic
Identify & Access Management		Town	School	
Desktop		Town		School
Security	Town			School
Data Protection	Town			School

B. Business Productivity Optimization Model

	Basic	Standardized	Rationalized	Dynamic
Unified Communications		Town	School	
Collaboration		Town	School	
Enterprise Content Management		Town	School	
Enterprise Search		Town	School	
Business Intelligence	Town / School			

C. Application Platform Optimization Model

	Basic	Standardized	Rationalized	Dynamic
User Experience	Town		School	
Business Intelligence	Town / School			
SOA And Business Process		Town / School		
Data Management		Town	School	
Development (Application Selection)	Town	School		

Cost of a Cybersecurity Breach



\$6T

*Cost of
cybercrime in
2021*

\$3.92M

*Cost of a
data breach
in 2018*

25,575

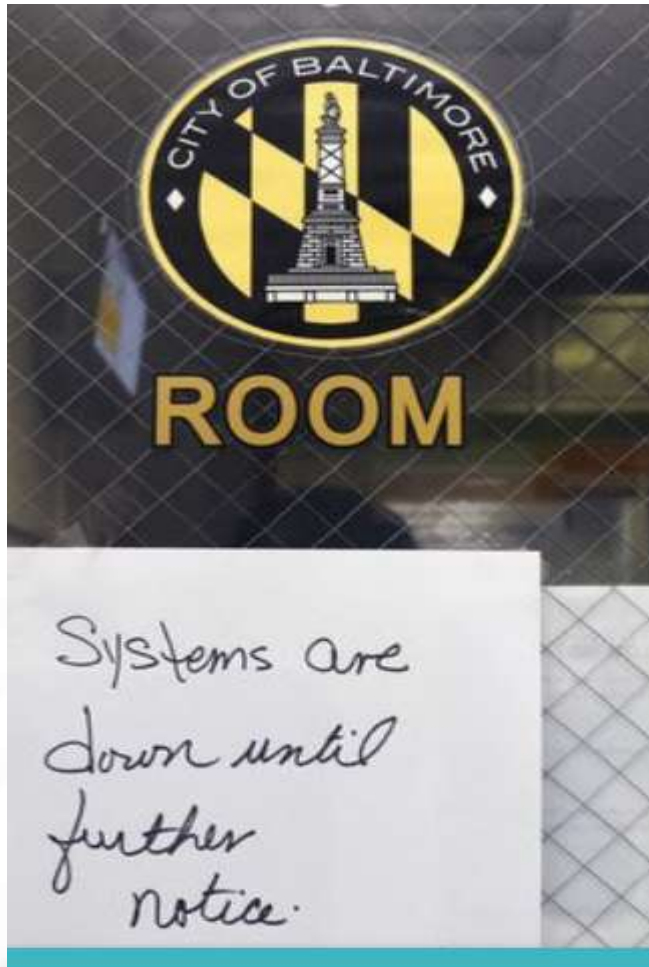
*Average
records lost
per breach*

\$150

*Cost per
lost record*

Sources:

Real Life Stories – City of Baltimore



- ✓ May 2019 The “Robinhood” Ransomware attack cost \$18.2 M in delayed tax revenue and direct costs to restore system
- ✓ The city’s IT office spent \$10M on recovery efforts

MA Ransomware Attacks - 2019



1 in 6 MA communities hit by Ransomware Attacks*

*Source: 2/14/20 NBC10 news report

Real Life Stories: Mid Size Towns



✓ July 2019 - Paid \$460K in ransom to restore phones, emails and recover 100 years of municipal records



✓ June 2019 - Paid \$600K in ransom to restore all online services, email, phones & water utility pump stations



✓ March 2019 - Paid \$400K ransom to restore Police 911 Dispatch Services and other online services e.g. bill pay



Goals/Future State Recommendations

Mission Statement

Transform the existing technology environments of the Town, School District, & Public Safety Departments into an integrated, scalable & supportable technology framework that better supports the employees of Duxbury & better serves Duxbury residents

Future State Recommendations - Overview



Goal 1: Transform and enhance processes through information technologies

Goal 1:
Transform &
enhance
processes through
information
technology

- ✓ Upgrade Operating Systems and Platforms
- ✓ Create a Cloud/Infrastructure Plan to drive all future technology initiatives
- ✓ Minimize infrastructure costs/support and maintenance

Goal 2: Organize and Manage Technology Initiatives for all Town Departments

Goal 2:
Organize &
manage
technology
initiatives for all
Town Departments

- ✓ Establish standards for policy and resource decisions related to the IT roadmap
- ✓ Implement a structured purchasing process for both software and infrastructure
- ✓ Develop strong information technology governance

Goal 3: Realign and Provide an IT Organizational Structure to Support all Technology Initiatives

Goal 3:
Realign IT
organizational
structure to support
all technology
initiatives

- ✓ Provide consolidated management and technology governance for all IT operations
- ✓ IT shall drive all technology innovations and solutions
- ✓ Provide appropriate IT staffing and resources to support all technology initiatives

Proposed IT Governance Structure

- Create new Chief Technology Officer (CTO) position responsible for the IT delivery for the Town of Duxbury
 - Reports to the Town Manager and the School Superintendent
 - Follows the current Facilities Manager Model
- Create a Technology Steering Committee comprised of the CTO, Town, School, Library, COA, and Public Safety to drive IT priorities for the Town of Duxbury
- Unify all security and vulnerability initiatives

Technology Steering Committee

- Technology Steering Committee will:
 - Drive IT priorities for the Town of Duxbury
 - Develop Standard Operating Procedures (SOP) and/or Memorandum of Understanding (MOU) between Town, School, Library, COA and Public Safety
 - Develop a unified backup, disaster recovery and business continuity plan

Goal 4: Maintain IT security and privacy programs proactively



Goal 4:
Maintain IT
security & data
privacy programs
proactively

- ✓ Develop policies and procedures related to security and privacy regulations
- ✓ Maintain a strong risk management program
- ✓ Educate all staff members on appropriate security and privacy issues, controls, and best practices

Goal 5: Promote and transfer knowledge, understanding, and use of technologies for end users

Goal 5:
Promote & transfer
knowledge & use
of technologies for
all end-users

- ✓ Implement training programs for end users to:
 - Increase efficiency with applications
 - Retool skills and stay current as new technologies are introduced
 - Educate all staff on security issues, controls, and Town of Duxbury technical policies/procedures

Goal 6: Control, Maintain, and Improve the Network Infrastructure



Goal 6:
Control, maintain,
& improve the
network
infrastructure

- ✓ The Technology Steering Committee will:
 - Monitor all technology initiatives
 - Oversee technology plan and updates to the plan
 - Make policy and resource decisions related to the strategic plan
 - Implement a structured process to prioritize and monitor technology projects

FY 2021 Budget Recommendations

FY 2021 Budget Recommendations

Source: blum shapiro Strategic IT Master Plan - Octoboer 2019

Goal 1: Transform Processes Through IT	Cost	Description
(1) Upgrade Windows 7 (Town Only)	\$ 15,875.00	Technology Cost upgrade Microsoft OS Win 7.0 to OS Win 10.0
(4) Office 365 Implementation	\$ 45,000.00	Technology Cost - Exchange Migration \$45,000
Goal 3: Realign IT Organizational Structure to Support Technology Initiatives		
(1) IT Resources/CTO Selection	\$150,000	Includes salary and benefits
Goal 6: Control, Maintain and Improve Network Infrastructure		
(2) Backup and Disaster Recovery Plan/Strategy	\$ 155,000.00	Technology Cost VM Ware Upgrade
Total	\$ 365,875.00	