

# ATTACHMENT 1

## Rapid Workflow®

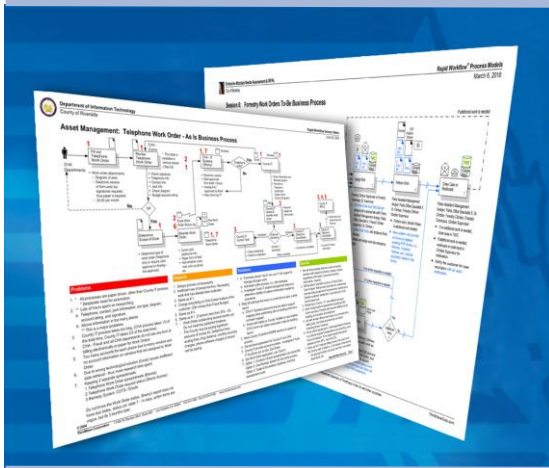
Problems, Impacts,  
Solutions, Benefits



### Information Technology Strategic Plan Costa Mesa ITSP Phase 2 Years 6-10

#### Task 3.1.2: Final ITSP

September 8, 2026



38  
YEARS

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**ThirdWave Corporation**  
Information Systems Intelligently Applied  
12100 Wilshire Blvd. Suite 800  
Los Angeles, CA 90025  
[www.ThirdWaveCorp.com](http://www.ThirdWaveCorp.com)  
310.804.7565



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## Preface



The City of Costa Mesa Information Technology Strategic Plan (ITSP) & Implementation Roadmap (Roadmap) represents a continuation of the original project begun in 2020 and completed in 2025. The ITSP is the result of a comprehensive and thorough assessment of the City's existing technologies, operational requirements and service delivery needs. The ITSP is technologically strategic, operationally responsive, and fiscally responsible. It addresses the requirements of mission-critical business needs of the City and its customers five years after the completion of the first strategic plan.



The ITSP Roadmap is the product of a collaborative effort with City of Costa Mesa's management and staff who made valuable contributions throughout the project. A focus was placed on addressing management, operational and technology challenges that could be mitigated with strategic investments in proven and emerging technologies. ThirdWave observed numerous strengths at the City including the following:

- Under the direction of the City Manager and IT Director, the execution of the 5-year IT Strategic Plan is a healthy indicator of the City's intent to intelligently plan the future use of emerging technologies.
- City staff have a strong level of professionalism and are open to embrace Information Technologies with a conscientious commitment to deliver exemplary services to the public.
- The level of engagement on the Staff Online Survey provided significant feedback in their written comments throughout the survey, providing considerable and valuable insights into end-user requirements.

- The City's leadership team is highly committed to the fullest use of automation, to provide extraordinary customer services.
- The City IT Department did an exceptional job implementing the first 5-year IT Strategic Plan, completing a substantial number of initiatives identified therein. Examples include:
  - TESSA: Access to real time data, streamlined business process for obtaining permits
  - Desktop Replacements/Single Device strategy/MDC replacements
  - AVAYA Switch Replacement and System Upgrade
  - Improved levels of customer service to City staff
- The City is well positioned to build upon the first Plan and leverage the current wave of emerging information technologies for the benefit of the Costa Mesa community.

The ITSP & Roadmap focuses on improving the status quo and articulating a path for the City's continuing evolution as an exceptional municipality; it is comprised of two volumes:

**ITSP:** ***IT Strategic Plan (ITSP)***, providing functional and technical specifications and benefits for a comprehensive set of possible management, business process improvement, and Information Technology initiatives (this document);

**Roadmap:** ***IT Strategic Plan 5-Year Implementation Roadmap (Roadmap)***, providing the final proposed and prioritized initiatives, budget estimates, 5-year timeline, and enterprise benefits of adopting and funding the ITSP.

The challenge of adopting, funding and implementing an ITSP Roadmap is a formidable one. However, given its 5-year timeline, there is plenty of latitude to execute the technology initiatives identified in the ITSP. The Roadmap is a living document that should be reviewed and adjusted on a yearly basis. It provides opportunities for new, more efficient ways of providing city services. The purpose of the Roadmap is to ensure investments in strategic business technologies are sound and deliver the highest possible value to the City and its community. This document provides a wealth of data that can be leveraged over the next five years to facilitate excellence in service delivery, internal operations, and community well-being.

Special thanks to City Manager Cecilia Gallardo-Daly, Steve Ely, Information Technology Director, the City leadership team for their engagement, and the City's professional staff for their participation and valuable input. This project could not have been completed without the close collaboration of staff and management.

Respectfully,



Roy R. Hernández  
Founder, President & CEO  
**ThirdWave Corporation**

## Section 1 Executive Summary



### 1.1 Information Technology Strategic Plan Vision

This document provides an Information Technology Strategic Plan (ITSP) custom tailored to the City of Costa Mesa.

Informed by the unique organizational and operational needs of the City, the ITSP offers a technologically sound vision focusing on Strategic Business Technologies responsive to the challenges and opportunities that exist at the City of Costa Mesa.

The vision of the ITSP is to:

*Provide a comprehensive roadmap fostering the use of proven state-of-the-practice Information Technology in the most strategic, innovative, cost effective and efficient manner possible to support internal City operations, extraordinary customer service delivery, civic participation and community wellbeing.*



The adoption and implementation of the ITSP will leverage effective investment in Information Technologies, while supporting the City of Costa Mesa's mission-critical services.

## 1.2 Project Goal & Objectives

The goal of the project was to create an exceedingly responsive five (5) year ITSP & Roadmap employing a highly participatory process engaging City of Costa Mesa staff, management, and the IT department. The objectives are to:

- Connect technology resources, innovation, and initiatives to the City's core values and mission-critical services.
- Serve as an effective framework for how IT services are delivered throughout the City.
- Define a clear set of goals, guiding principles, and strategic priorities for accomplishing the City's ITSP, principles and implementation roadmap.
- Align emerging technologies with the City Council goals.



The ITSP represents the results of a comprehensive citywide assessment of IT needs. It provides a high-level technical specification for sixty-four (64) Information Technology initiatives (30 planned and 34 to be determined), including a compelling business case for each. Consequently, this is a sizable document.

This document is structured to provide sufficient details for each actionable recommendation, to the extent that the content could be used to develop numerous Request for Proposal/solicitation documents over the next five years. In other words, this is a technical reference volume (a blueprint for a 5-year construction project) not a document meant to be read in one sitting.

The ITSP document contains articulated objectives that will guide how the City delivers innovative and effective services internally and to the public.

## 1.3 Project Approach & Methodology

The ITSP project employed a comprehensive and structured best-practice methodology. It applied ThirdWave's patented data-driven method, which collects and synthesizes several types of information, including:

- Data on existing and planned Information Technology
- Council Member feedback
- Focus Groups with IT staff and management
- Interviews with City of Costa Mesa's leadership team
- Online Staff Survey, to allow all staff the opportunity to provide input
- Public Outreach
- Eleven (11) half-day Rapid Workflow® business process improvement workshops addressing mission-critical business functions

## 1.4 City of Costa Mesa Background Information

The City of Costa Mesa is located in Orange County, California, about 40 miles south of Los Angeles and a few miles inland from the Pacific Ocean. Known as the “City of the Arts”, Costa Mesa has a vibrant cultural scene centered around the Segerstrom Center for the Arts and South Coast Repertory Theater.

Originally a farming community, the City has grown into a dynamic urban area with a mix of residential, commercial, and industrial development. It is home to South Coast Plaza, one of the largest shopping centers in the U.S., and hosts popular events such as the Orange County Fair at the OC Fair & Event Center.



Costa Mesa’s location provides easy access to beaches, freeways, and major Southern California attractions, making it a desirable place to live and work.

## 1.5 Information Technology Strategic Plan (ITSP) Findings

### 1.5.1 Summary of Key Findings

The ITSP project identified approximately sixty-four (64) strategic initiatives (30 planned and 34 to be determined) spanning management, operational and technology areas of opportunity. Many of these represent solutions widely affecting customer service, are foundational to adopt emerging technologies, or provide staff with the fundamental tools they need to perform their operational/service delivery responsibilities.

The following provides a summary of the top ten (10) challenges and recommendations facing City of Costa Mesa but are not prioritized. (All initiatives are described in detail in Section 4, ITSP Recommendations in this document. Technical terms are defined in a glossary in Section 6 of this document.)

#### 1. City Hall EOC and PD Uninterrupted Power Supply (UPS)

The Infrastructure IT Focus Group with IT staff and management revealed the City’s UPS is coming to end of life and will no longer be supported in two years. If the City Hall UPS fails, the City’s systems and services will stop working in the event power fails or is unstable. City Hall needs an enterprise grade UPS with redundancy.

#### 2. City Hall Back Up Servers, Nimble Storage And Network (SAN) Replacement

The Infrastructure IT Focus Group with IT staff and management revealed the City has significant network traffic, intrusion detection, etc. There is too much data to analyze. No one person can do it and take meaningful action related to it. The replacement is due to end of life/warranty.

**3. Public Safety IT Service Model**

The Rapid Workflow® workshops with the Fire and Police Department revealed issues with the current IT service level support model where users have assumed more responsibility for system issue support and resolution than they feel qualified to do. This has resulted in staff frustration and internal/external departmental friction.

**4. Citizen Request Management**

The Rapid Workflow® workshop with the City Manager's Office and Economic Development revealed the lack of a public engagement system assisting the process of starting a business. Business information is entered into Excel or not being captured, resulting in lost leads applicants losing interest, or not starting a business in Costa Mesa. Departments use a variety of siloed systems. Having limited means of public input limits the City's ability to improve over time and cannot establish metrics or performance measurements.

**5. Enterprise Content Management System, Laserfiche**

Laserfiche, the City's Enterprise Content Management System (ECMS) implemented 11 years ago, was the most mentioned system in the ITSP project. (This was also the case in the Strategic Plan from 2020.) Many of the same challenges remain. A system that should have been rolled out citywide has not been. Managing and searching all digital content is a challenge, the system is underutilized, and departments still have hardcopy documents, resulting in wasted staff time and resources to search and increased propensity for errors.

**6. Real Time Information Center (RTIC)**

The Rapid Workflow® workshop with the Police Department revealed the City is currently engaged in surveying what other cities are doing with RTICs, where they should be located, staff resource requirements, and the technologies to be deployed.

**7. CIP Project Management**

The Rapid Workflow® workshop and Management Interviews with Public Works revealed it lacks in-house Project Management software to manage projects, schedules, resources, budgets, etc. Staff rely on Excel spreadsheets to manage projects and budgets, document project status individually in Word/Excel, then compile the data. Each Project Manager does this in diverse ways.

**8. Employee Information Application**

The Rapid Workflow® workshop with EOC – Communications staff revealed the inability to maintain updated employee contact information. This is a labor-intensive process. HR must go through their files, update the information, then enter it into a spreadsheet. This also results in the inability to make timely notifications to staff during a critical incident and limits the ability to effectuate a Disaster Recovery Plan.

**9. IT Staff Resources**

The need for additional IT expertise and resources was noted in several project tasks related to the City's public safety departments. Workshops with Police, Fire and Emergency Operations Center revealed a need for subject matter experts who have expertise with current and future public safety systems. These will include the implementation of a Real Time Information Center, drones, AI technologies, and CAD RMS Fire Apps.

## 10. Artificial Intelligence

The topic of AI came up repeatedly throughout the ITSP project, e.g., EOC - Communications and Police CAD/RTIC. Today, most software comes with built-in AI layer which could improve the efficiency of current business processes and services to the public, e.g., incoming calls, especially non-emergency calls.

### 1.5.2 Summary of Key Recommendations

The ITSP & Roadmap project identified dozens of potential initiatives. The following are the most significant, and specific, actionable recommendations for the benefit they will deliver to City of Costa Mesa or its customers. The items below provide a summary of the top ten organizational and technical recommendations for the ITSP & Roadmap.

#### 1. City Hall EOC and PD UPS (Uninterrupted Power Supply)

Replace the existing UPS with a new unit, in addition to the City Hall EOC and PD UPS replacement. This will allow the enterprise data center to run during a multi-hour power outage, commercial power failures and brownouts, protecting computer operations.

#### 2. City Hall Back Up Servers, Nimble SAN Replacement

Build redundancy to City Hall servers at a separate location either at the dispatch center (which has an independent power source and UPS) or at a co-location, in the event City Hall needs to be evacuated. This will ensure continuity of operations, provide enhanced reliability and resilience, and ensure compliance and best practices of the Emergency Dispatch Center.

#### 3. Public Safety IT Service Model

Articulate and adopt an IT service model with clearly defined support responsibilities for Fire Information Technologies. Assign dedicated Application Analyst with subject matter expertise on various mission critical systems used in the public safety departments: Fire, Police, and EOC. This will improve collaboration with agency partners, reduce liability, public safety risk, and undesirable outcomes, and improve internal and external customer service.

#### 4. Citizen Request Management

Carry out a formal procurement process tailored to the City's requirements including a citizen portal to process requests, consolidate public interactions, provide responses, heat mapping, interactive maps, dashboards, process and record requests, AI queries, and public satisfaction polls. This will produce several benefits, e.g., centralized engagement activities, enhanced user experience, more effective public engagement, greater reach to constituents, and better reaching of underrepresented communities.

#### 5. Enterprise Content Management System, Laserfiche

Develop a citywide Laserfiche implementation reset rollout out plan including documents and records inventory in servers, Laserfiche & hardcopy, enterprise content management taxonomy, backfile conversion plan, and a budget estimate for the Laserfiche reset. Encompass software licenses, backfile conversions for scanning services to digitize data, professional services for content loading, workflow development, implementation of the Records Management Module, and end user training.

**6. Real Time Information Center**

Develop a comprehensive RTIC Implementation Roadmap including: all current and proposed technologies, their application integration architecture, data management, system support requirements, and plan (City or vendor resources). Specifically, link the City's traffic camera system with PD while maintaining continuity of service and grant funding compliance. Complete the pilot to test solutions providing closed circuit television feed to PD. This will result in staff time savings, workflow improvements, force multipliers when experiencing high call volumes for staff on the floor, improved public safety, and promote continuity of service.

**7. CIP Project Management**

Carry out a formal CIP Project Management software procurement process implemented as an enterprise system used across multiple departments. Key functionality should address Capital Planning & Budgeting, Project Portfolio Management, Cost Tracking, Scheduling & Task Management, and Construction Management Features. This will result in centralized Project tracking, consolidates all CIP projects, budgets, schedules, documents, and updates in one system. Provides a single source of truth for staff, leadership, and stakeholders.

**8. Employee Information Application**

Implement an Employee Information Application to automate the process of collecting employee contact information, possibly with the employee portal in the ERP, and then push information to Everbridge. Adopt the application to collect data across the City. Adopt a citywide policy that all staff must fill out and update their contact information. This will result in improved employee information and communication with employees.

**9. IT Staff Resources**

Resource the IT organization with staff to effectively support existing and future systems in the Public Safety and City Clerk organizations. The ITSP recommends (1) Application Analyst for Public Safety/CAD/RMS, (1) Application Analyst Database Administrator, (1) Application Analyst for TESSA, (1) Application Analyst for Laserfiche/AssetWorks, (1) Application Analyst for ERP. These positions will be added over the 5-year timeline as technologies are deployed. The City will meet additional resources with a combination of consultants and vendors, as funding allows.

**10. Artificial Intelligence**

Promote an AI strategy including clear business objectives identifying desired outcomes and metrics. Prioritize service delivery use cases aligned with the ITSP. Technical performance parameters include:

- a data strategy (use of current data, data quality, governance, and privacy), technology architecture;
- operating model and ownership: owners of AI use cases;
- talent & capability plan: needed skills, and training for nontechnical staff.

AI should mirror the ITSP roadmap in investment priorities and timeline. The benefits of AI include improved efficiency and automation, better decision-making, enhanced customer service, stronger public safety and security, and cost savings.

### 1.5.3 IT Strategic Plan & Roadmap Benefits

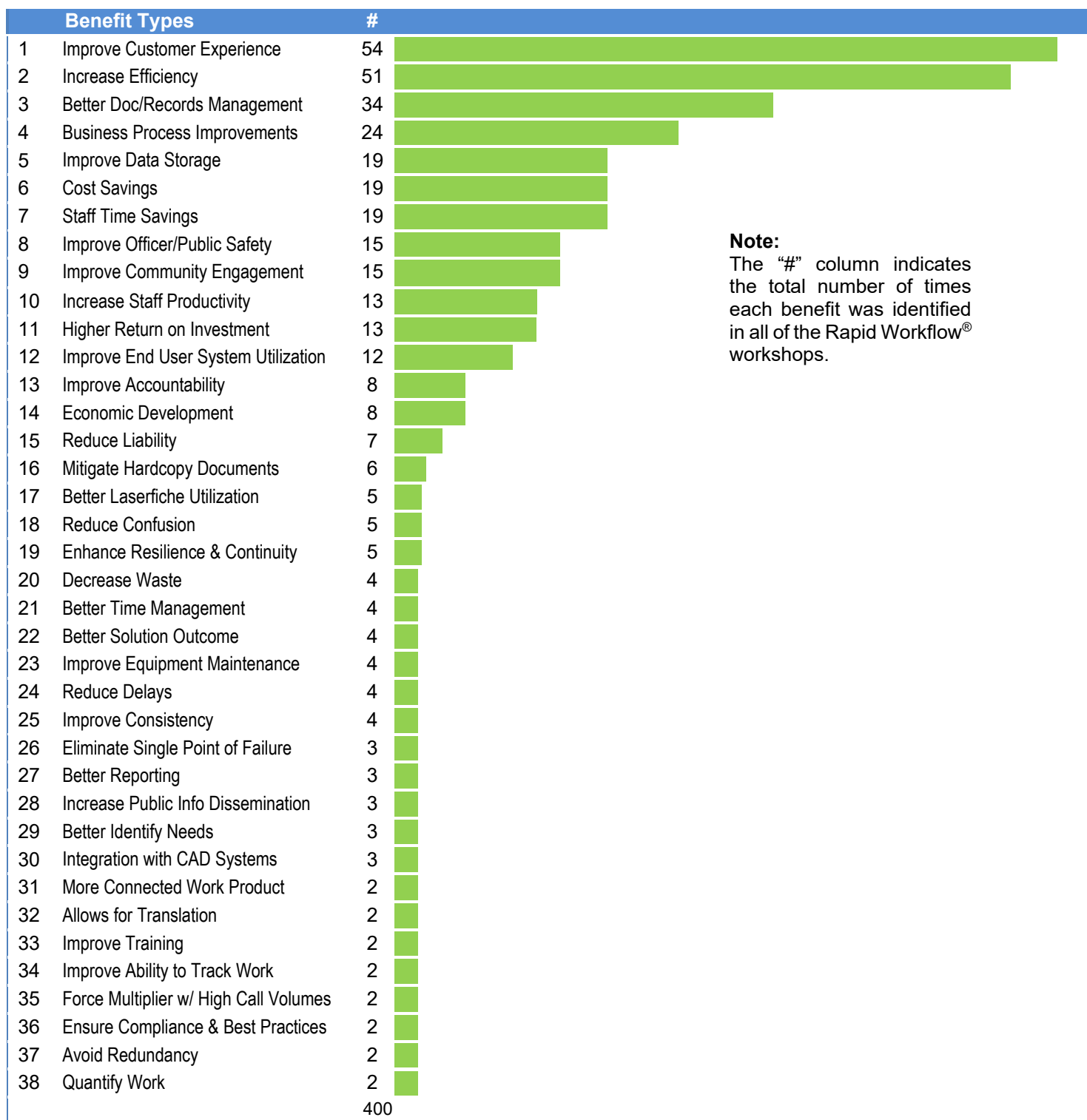
The ITSP project identified substantial potential benefits that could be realized by implementing the strategy. Qualitative and quantitative benefits were identified in the Rapid Workflow® workshops.

This information was leveraged to prioritize ITSP initiatives. A total of four hundred (400) potential benefits were identified in thirty-eight types (38) of benefit categories in the Rapid Workflow® business process workshops.



The figure on the next page, Figure 1.5.3.1: ITSP Potential Benefits, lists the top thirty-eight potential benefits of approving and funding the ITSP.

**Figure 1.5.3.1: ITSP Potential Benefits**



## Section 2 Project Overview



### 2.1 Project Background, Goal, & Objectives

The goal of the ITSP Phase 2 project is to identify internal and external technology needs and responsive solutions that will allow the City of Costa Mesa to provide exemplary services to residents and businesses. Moreover, the ITSP Roadmap will help guide the City in responsive technology planning and sound investments.

The objective of the ITSP project is to provide a 5-year ITSP Roadmap employing a highly participatory process directly engaging City of Costa stakeholders.

The objectives of the ITSP project are to:

- Define a clear set of goals, guiding principles and strategic priorities for accomplishing City objectives defining best practices and actionable recommendations.
- Serve as the framework for IT services delivery with an enterprise focus, integrating existing and new systems, to provide business process improvement.
- Provide actionable recommendations and a blueprint articulating how the City delivers innovative, unified, and effective technology services throughout the organization and community at large.

This report is accompanied by a second document, **ITSP Implementation Roadmap** focusing on prioritization, budgeting and deployment timeline. As such, the following pages address “what” should be done, and the Roadmap addresses “when” and at “what cost.”



To this end, the implementation of future business systems and Information Technology projects will be properly prioritized, scheduled and coordinated as part of an enterprise ITSP. This will help ensure the City’s technological advancement by making logical and sound investments in physical resources (i.e., hardware, software, integrated systems, etc.) and human resources (staff and training).

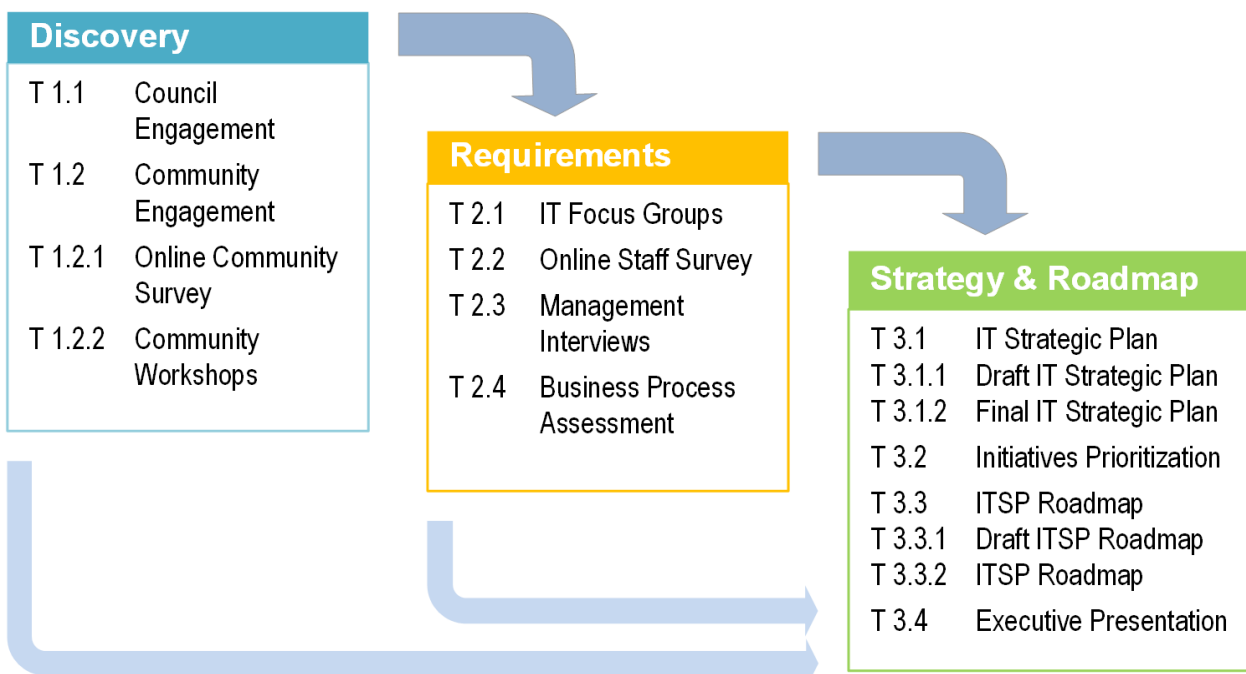
## 2.2 IT Strategic Plan Project Approach

The ITSP project employed a comprehensive, logical and structured approach relying on the collection, assessment and synthesis of various types of information gathered in the project:

- Information Technology inventory data
- Management interview data
- Agency staff and Community online survey data
- IT Focus Group data
- Rapid Workflow® Business Process Workshop data

The project employed ThirdWave’s patented Enterprise Architecture data-driven methodology where data from one phase informs the subsequent project phases and forms the basis for the final recommendations and strategy. Figure 2.2.1 below illustrates the approach used on the ITSP project.

**Figure 2.2.1: Comprehensive Project Methodology**



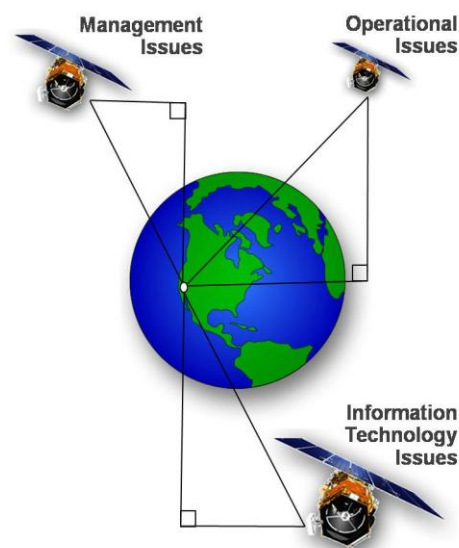
- Phase 1:** Discovery Phase: established a baseline understanding of the City of Costa Mesa’s IT and business systems environment, including a survey of existing Information Technologies.
- Phase 2:** Requirements Assessment Phase: engaged a broad section of stakeholders, including:
- Department Heads: in management interviews soliciting a management perspective on current and future operating challenges faced by departments.
  - City of Costa Mesa staff: eleven (11) business requirements workshops were held to address departmental and enterprise operating/service delivery needs. The workshops had a total of 68 (sixty-eight) staff participate. Many staff attended multiple workshops.
  - IT staff: four focus groups addressing infrastructure, hardware, software, and IT operations and service delivery.
- Phase 3:** Strategic Plan and Roadmap Phase: synthesized all the data collected in previous tasks to produce prioritized technology initiatives, budget estimates and implementation plan.

The ITSP & Roadmap identifies opportunities for improving business processes and customer service through policy, process and/or Information Technology initiatives.

## Figure 2.2.2: Comprehensive Project Framework

ThirdWave’s IT Strategic Planning framework triangulates on all key facets of the organization to get a crisp definition of business, functional and technology requirements to produce responsive and actionable recommendations. The project employed a participatory process including:

- **Management Interviews:** To address business unit missions, business architecture, governance structure, management policies, strategic planning, fiscal and staff resource allocation to effectively sustain the ITSP & Roadmap.
- **Online Staff Survey/Business Process Workshops:** To address city needs and opportunities for streamlined business processes, methods and procedures, and tools required by staff to provide extraordinary service delivery.
- **Technology Focus Groups:** To address strategic information technologies with the appropriate infrastructure, hardware, software, Enterprise Architecture, organizational structure, knowledge, skills and abilities; standards and best practices.



ThirdWave’s IT Strategic Planning  
Triangulation Framework ©1988

ThirdWave's IT Strategic Planning Triangulation Framework recognizes that a viable ITSP must address all needs of the organization, including customer experience.

**This document is not meant to be read in one sitting; it is a reference guide – a roadmap for a five-year journey. The ITSP provides technical descriptions of strategic business/IT initiatives over five years, supported by the rationale for each.** This will facilitate the effective planning, procurement, implementation, and management of Information Technologies at City of Costa Mesa.

The *IT Strategic Plan* (this document) describes “what” City of Costa Mesa should do. The ITSP Roadmap document describes “when” and at what cost.

## Section 3 ITSP Findings



### 3.1 Management Requirements Findings

Management requirements were gathered via interviews; the objectives included the following:

1. Obtain a management perspective on unique business challenges facing each department.
2. Gather citywide functional, operational, and service delivery requirements.
3. Solicit opinions on the existing IT organization and their level of support services.

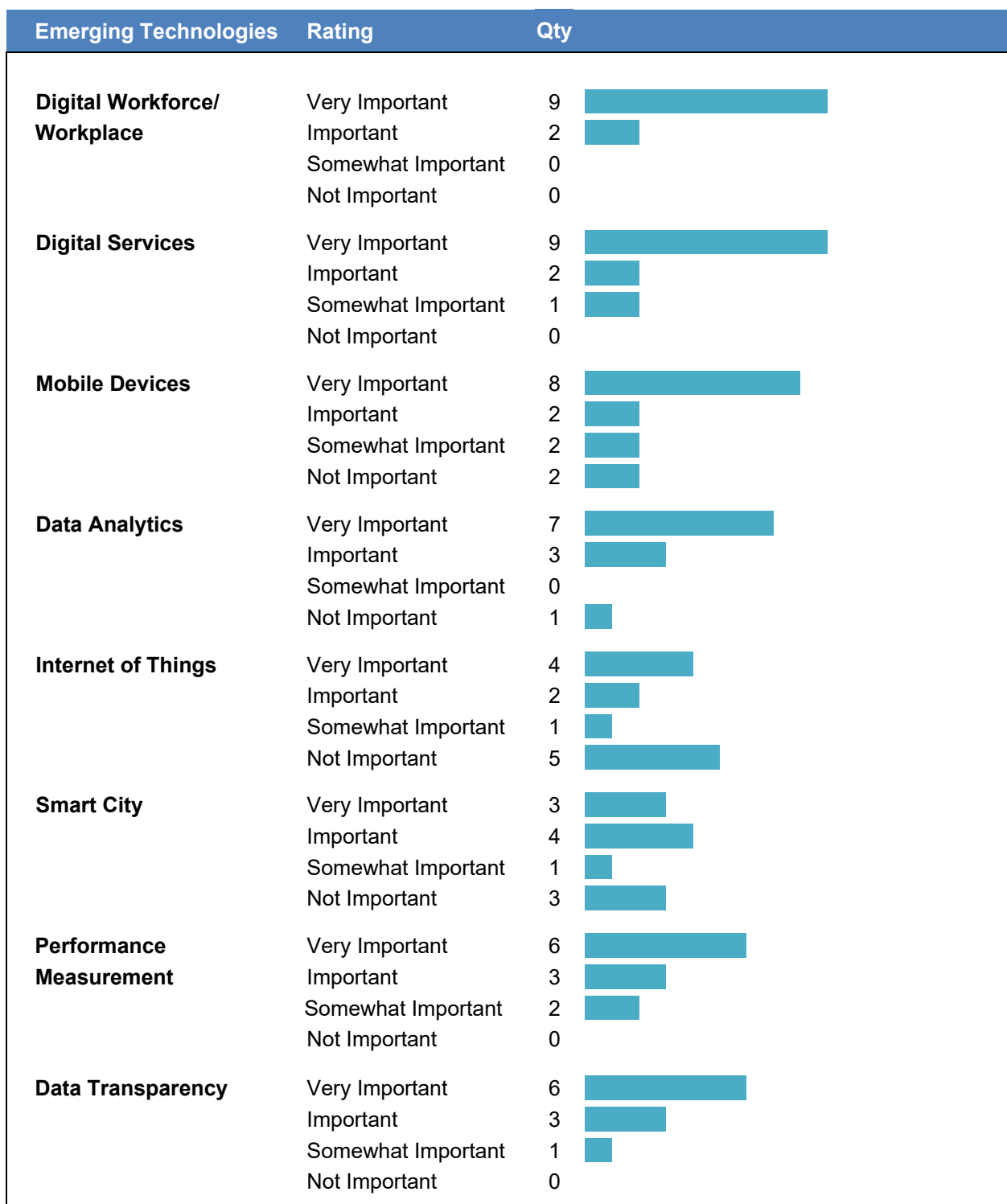


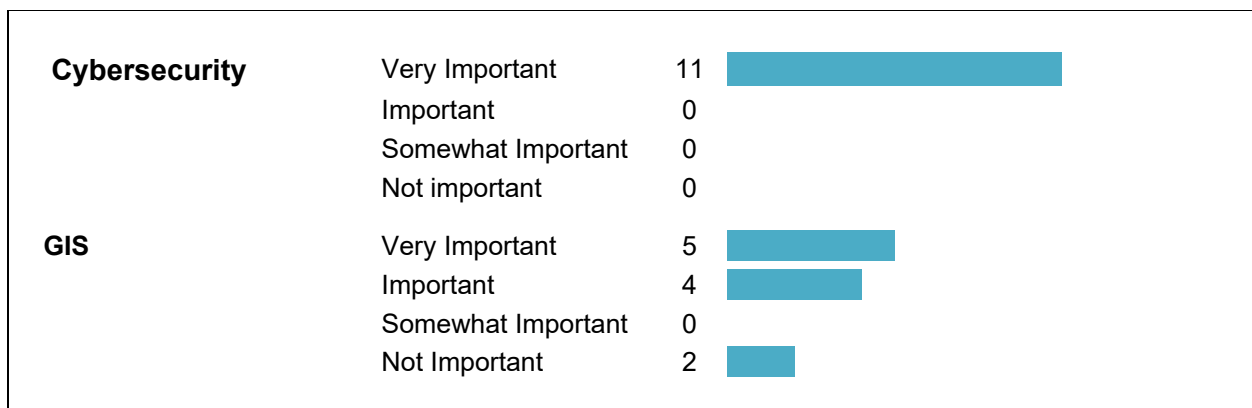
The following members of the leadership team participated:

- |                                            |                                                  |
|--------------------------------------------|--------------------------------------------------|
| 1. Public Works, Raja Sethuraman           | 8. City Clerk, Brenda Green                      |
| 2. Information Technology, Steve Ely       | 9. City Attorney, Kim Hall Barlow                |
| 3. Fire Chief, Dan Stefano                 | 10. Finance, Anna Acosta-Reyes                   |
| 4. Chief of Police, Joyce LaPointe         | 11. Human Resources, Kasama Lee                  |
| 5. Economics & Development, Carrie Tai     | 12. City Manager's Office, Cecilia Gallardo-Daly |
| 6. Public Information Manager, Tony Dodero | 13. Parks & Community Services, Brian Gruner     |
| 7. Fire Department, Jon Neal/Jason Pyle    |                                                  |

The figure on the following page summarizes the City's leadership perspective on the relative importance of key technologies. The "Qty." column indicates the scores assigned to each technology.

**Figure 3.1.1: Relative Importance of Emerging Technologies**





The data clearly indicates that the leadership team places an elevated level of importance on most emerging technologies. The highest level of importance was placed on Cybersecurity (11), Digital Workforce/Workplace (9), and Digital Services (9).

### 3.1.1 Satisfaction with IT Support & Services

The second part of the interview included gathering the leadership's perspective on the services provided by the IT organization. The management team was asked to provide a rating on the following aspects of the IT organization. Figure 3.1.1.1 on the following page shows the cumulative rating results.

- **Adequateness of staffing levels:** Adequateness of staffing levels, e.g., demonstrated by IT's level of responsiveness and ability to deliver projects/services in a timely manner.
- **Adequateness of technical knowledge, skills, and abilities:** Adequateness of technical knowledge or training of IT staff, e.g., do IT staff seem to have the expertise to get the job done and/or resolve technical issues.
- **Adequateness of investment:** Adequateness of the IT budget and allocation of resources to meet current/future IT needs, i.e., in your opinion does City of Costa Mesa invest sufficiently in contemporary technology and IT staff resources?

**Figure 3.1.1.1: IT Organizational Knowledge, Skills, & Abilities**



### 3.1.2 Summary Management Comments on Services Provided by IT

**Adequateness of staffing levels:** The ratings of staffing levels were primarily Very Good.

**Adequateness of technical knowledge or training:** The ratings of staff knowledge and training were primarily Excellent (36%) and Very Good (29%).

**Adequateness of IT budget and allocation of resources:** Ratings for this item were highest in the lower end of the Satisfactory spectrum (38%). However, the combined ratings for Excellent, Very Good, and Good represent 46% of the ratings.

## 3.2 IT Staff Focus Group Findings

Four focus groups were held with IT staff regarding the City’s Information Technology portfolio and operations. The following illustrates the challenges and opportunities facing the IT Department in four key technology areas, as perceived by IT staff:

- Infrastructure
- Hardware
- Software
- Organization and Operations



**Figure 3.2.1: IT Focus Group Summary Findings**

**Legend:**

- M** ■ Management Issues: related to finance, organizational structure, staffing, training and/or policy.  
**O** ■ Operational Issues: related to operations, service delivery, methods and/or procedures.  
**T** ■ Technology Issues: related to any aspect of information technology.

| 1.0 Infrastructure |                                                                                           |   |   |   |
|--------------------|-------------------------------------------------------------------------------------------|---|---|---|
| 1.1                | Network Infrastructure and Wireless                                                       | M | O | T |
| 1.1.1              | <b>HP Core Switches</b>                                                                   |   |   |   |
|                    | 1. Enterprise HP Core Switches have not been replaced in 10 years .....                   |   |   | ■ |
| 1.1.2              | <b>Raised Floor (Communications)</b>                                                      |   |   |   |
|                    | 1. The raised floor is not stable, and the footings are coming lose .....                 |   | ■ |   |
| 1.1.3              | <b>Access Control (Physical Security)</b>                                                 |   |   |   |
|                    | 1. The access control systems for City Hall and PD are disparate systems .....            |   |   | ■ |
| 1.1.4              | <b>UPS (Uninterrupted Power Supply)</b>                                                   |   |   |   |
|                    | 1. UPS is at end-of-life.....                                                             |   |   | ■ |
| 1.1.5              | <b>Meraki Hardware</b>                                                                    |   |   |   |
|                    | 1. Obsolete Meraki hardware that is no longer supported by the manufacturer .....         |   |   | ■ |
| 1.1.6              | <b>VMware Redundant Server Farm</b>                                                       |   |   |   |
|                    | 1. If Dispatch loses network connectivity to PD, CAD system becomes unusable .....        |   |   | ■ |
| 1.1.7              | <b>IT Dedicated Generator</b>                                                             |   |   |   |
|                    | 1. The power delivery in the City Hall server room is unreliable .....                    |   |   | ■ |
|                    | 2. During power outage of over one hour, servers cannot stay on to provide service. ....  |   |   | ■ |
| 1.2                | Voice and Data Telecommunications                                                         | M | O | T |
| 1.2.1              | <b>Voice and Data Telecommunications</b>                                                  |   |   |   |
|                    | 1. VOIP is an ITSP Phase I Project, it can start after required cabling is in place ..... |   |   | ■ |

**1.3 Network/Cyber Security** M O T

**1.3.1 Dual Factor Authentication**

- 1. Have been mandated to implement two factor authentication for PD and City Hall ..... ■

**1.3.2 Firewalls**

- 1. Firewalls are outdated and behind the technology curve ..... ■

**1.3.3 SIEM (Security Information and Event Management) System**

- 1. There is so much network traffic, intrusion detection, etc. .... ■
- 2. There is too much data to analyze ..... ■
- 3. No one person can do it and take meaningful action related to it ..... ■

**2.0 Hardware**

**2.1 Servers and Virtualization Infrastructure** M O T

**2.1.1 Mobile Device Replacement**

- 1. Continue the replacement approach from the initial ITSP to replace desktops and laptop computers ..... ■

**2.1.2 Tape Backup Strategy**

- 1. Are currently on older back up to tape technology ..... ■
- 2. Requires significant staff time to retrieve the data ..... ■
- 3. Lack a defined SLA with departments on how fast systems can be restored ..... ■
- 4. Are getting more pressure from insurance companies ..... ■

**2.1.3 Public Safety MDCs (Mobile Data Computers)**

- 1. MDCs were replaced 3 years ago and will be out of support in 2 years ..... ■

**2.1.4 AV Council Chambers**

- 1. Trident is currently carrying out an assessment for AV requirements for the Council Chambers ..... ■

**2.1.5 Computer Aided Dispatch Redundancy**

- 1. There is currently a single point of failure for CAD ..... ■

**2.1.6 Enterprise Servers**

- 1. Have older servers ..... ■
- 2. Vendor/new ERP requirements are increasing for servers ..... ■

**2.2 Backups** M O T

- 2.2.1 No challenges identified.

**2.3 Storage** M O T

**2.3.1 Nimble SAN (Storage and Network)**

- 1. Nimble SANs are a bottleneck to access data due to speed of SAN technology .... ■
- 2. Current technology is getting older ..... ■
- 3. PD's SAN technology is 6 -7 years old ..... ■
- 4. City Hall SAN is 2-years old ..... ■

**2.4 Desktops/Tablets** M O T

- 2.4.1 No challenges identified.

**2.5 Mobile Devices** M O T

**2.5.1 Smartphones**

1. Current MDM solution (MaaS360) is unreliable and difficult to use ..... ■
2. It takes longer to configure on a phone, and it is not a robust solution ..... ■
3. PD requires patrol officers to manage their issued cellphones ..... ■

**2.6 Peripherals** M O T

**2.6.1 MFC (Multifunction Copiers)**

1. Have many desktop printers that are underutilized ..... ■
2. Have many out of warranty ..... ■
3. Toner is extremely expensive because machines are older than 7 years old ..... ■

**3.0 Applications/Database**

**3.1 Databases** M O T

**3.1.1 SQL Server Database Admin Position**

1. There are challenges for optimization and maintenance plans, but not with the current SQL database ..... ■
2. Staff IT knowledge is limited ..... ■
3. IT does not have a SQL Database Administrator ..... ■
4. No proactive monitoring, only go into it when there is a problem ..... ■

**3.1.2 AssetWorks Application Analyst**

1. AssetWorks is underutilized ..... ■
2. Only being used as a data entry by the Public Works Maintenance crew ..... ■
3. PD wanted to use it to track vehicles, but gave up ..... ■
4. Public Works uses it for Fleet Maintenance, but not the City ..... ■
5. The FD also wanted to use it where their vehicles are being maintained ..... ■
6. There are no application champions in the departments ..... ■
7. The person who introduced and managed the system left the City ..... ■
8. IT lacks expertise in AssetWorks ..... ■

**3.1.3 Laserfiche Training**

1. Adoption issues, underutilized ..... ■
2. Do not have the time to categorize documents ..... ■
3. They spend a lot of time redacting ..... ■
4. Utilizing workflows that are not applicable to their business processes ..... ■
5. The workflows were in test mode; they have to undo the workflow ..... ■

**3.1.4 Centralized Software Training Budget**

1. The City does not have a centralized software training budget ..... ■
2. Initial training is done, but there is no ongoing training ..... ■
3. Do not have a dedicated training room ..... ■

**3.2 Application Software Portfolio** M O T

**3.2.1** No challenges identified.

| 4.0 IT Organization and Operations |                                                                                                           |   |     |
|------------------------------------|-----------------------------------------------------------------------------------------------------------|---|-----|
| 4.1                                | Best Practices                                                                                            | M | O T |
| 4.1.1                              | IT Governance<br>No challenges identified.                                                                |   |     |
| 4.1.2                              | Process for Systems Support                                                                               |   |     |
|                                    | 1. When staff need assistance, they walk up to IT and request work .....                                  |   |     |
|                                    | 2. Lack of formal process for determining new business requirements, once the system is implemented. .... |   |     |
|                                    | 3. Having direct access to IT staff .....                                                                 |   |     |
|                                    | 4. The Operations team gets overwhelmed with the work they have to do .....                               |   |     |
|                                    | 5. Sometimes they have to drop what they're doing .....                                                   |   |     |
|                                    | 6. Everything they get is an emergency, IT staff do not get advance notice.....                           |   |     |
|                                    | 7. Staff escalate if they do not get the commitment they want.....                                        |   |     |
|                                    | 8. Staff are not using the Help Desk ticket system.....                                                   |   |     |
| 4.1.3                              | Requirements Definition<br>No challenges identified.                                                      |   |     |
| 4.1.4                              | Project Planning and Procurement<br>No challenges identified.                                             |   |     |
| 4.1.5                              | Project Management<br>No challenges identified.                                                           |   |     |
| 4.1.6                              | Systems Administration                                                                                    |   |     |
|                                    | 1. Not knowing the schedule of changes may affect applications being supported.....                       |   |     |
| 4.1.7                              | Storage, Backups, Lifecycle<br>No challenges identified.                                                  |   |     |
| 4.1.8                              | Virtualization, Operating Systems, Security, etc.                                                         |   |     |
|                                    | 1. OS and Virtualization software for ERP cannot be upgraded .....                                        |   |     |
| 4.2                                | Policies and Procedures                                                                                   | M | O T |
|                                    | No challenges identified.                                                                                 |   |     |
| 4.3                                | Business Continuity & Disaster Recovery Plan                                                              | M | O T |
|                                    | See Software Focus Group notes.                                                                           |   |     |
| 4.4                                | Help Desk                                                                                                 | M | O T |
|                                    | 1. Staff bypass the Help Desk. (IRAF – IT Request & Authorization Form).....                              |   |     |

### 3.2.1 Summary of IT Focus Groups

Figure 3.2.1.1, IT Focus Group Problems Statement Dashboard, provides a high-level overview of the four technology support areas addressed in the IT Focus Groups. The most challenging is the IT organization and service delivery model.

**Figure 3.2.1.1: IT Focus Group Problem Statement Dashboard**

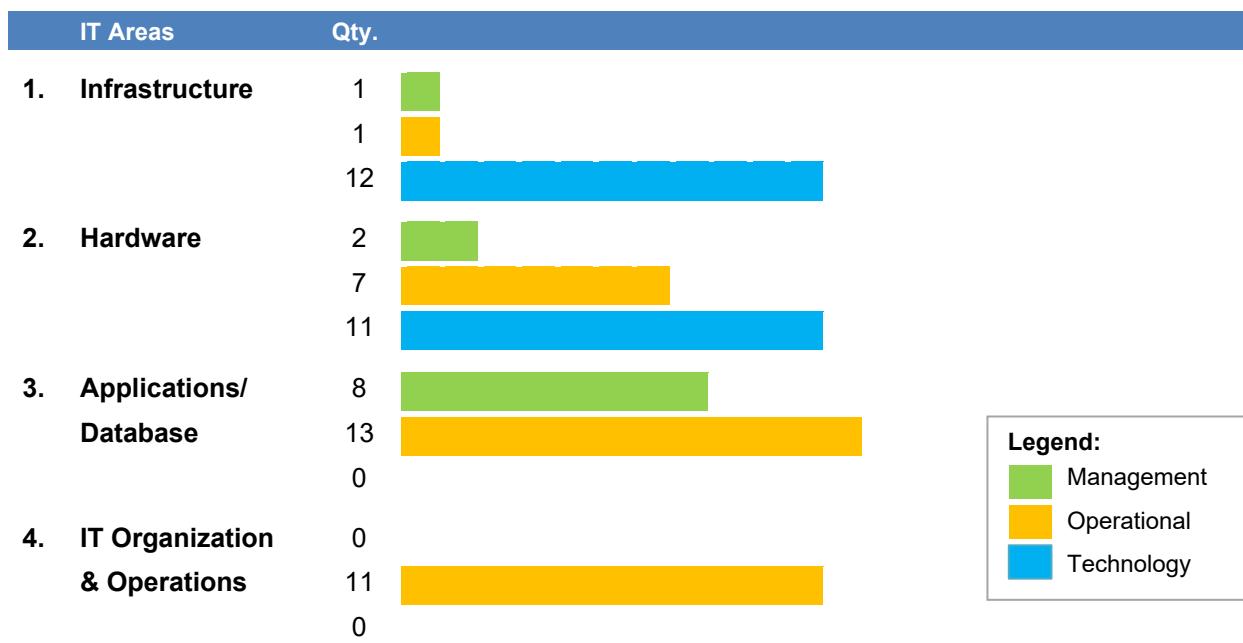


Figure 3.2.1.2 below provides an overall summary of the challenges identified by IT staff during the IT Focus Groups. While the compiled instances of management, operational and technology problems are not weighted, this dashboard provides a general indicator of existing challenges identified by City of Costa Mesa's IT staff.

**Figure 3.2.1.2: Overall Summary of IT Department Challenges**



The figure above indicates the most significant challenges faced by the IT organization related to a variety of operational and technology issues. This data is aligned with other findings in the discovery and requirements definition phases of the project, namely that the existing IT organization has operational challenges in how it provides services to the City, and supports Information Systems.

### 3.3 City of Costa Mesa Staff Online Survey

SurveyMonkey was used to provide all City staff with the opportunity to provide input on existing systems and the IT Department's ability to support them. The survey also solicited requirements in areas related to emerging technologies and how IT could better support the alignment of Information Technology investments with the Council's goals.

The survey also solicited requirements related to emerging technologies and how Information Services could better support City Departments and the community.

The online survey was posted from May 22, 2025, to June 2, 2025; 64 of 813 City staff (7.8%) responded to the survey – a very good response. The online survey addressed the following:

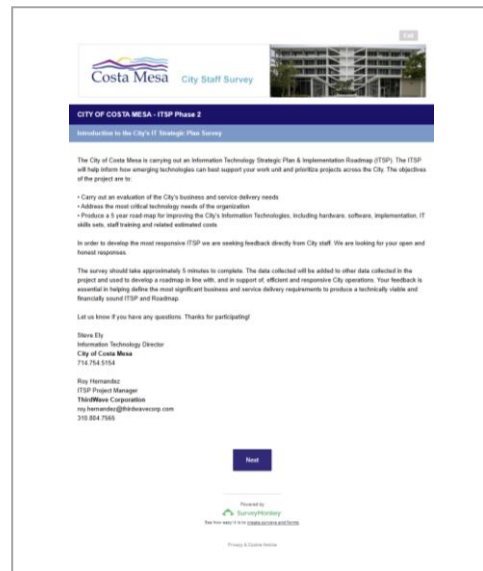
- Overall condition of City Information Systems
- The state of existing systems
- Information Technology needs
- Information Systems requiring improvement
- Services provided by Information Services
- Emerging Web Technologies

The data contained in this document was referenced and incorporated into the findings and recommendations in this document.

#### 3.3.1 Key Findings

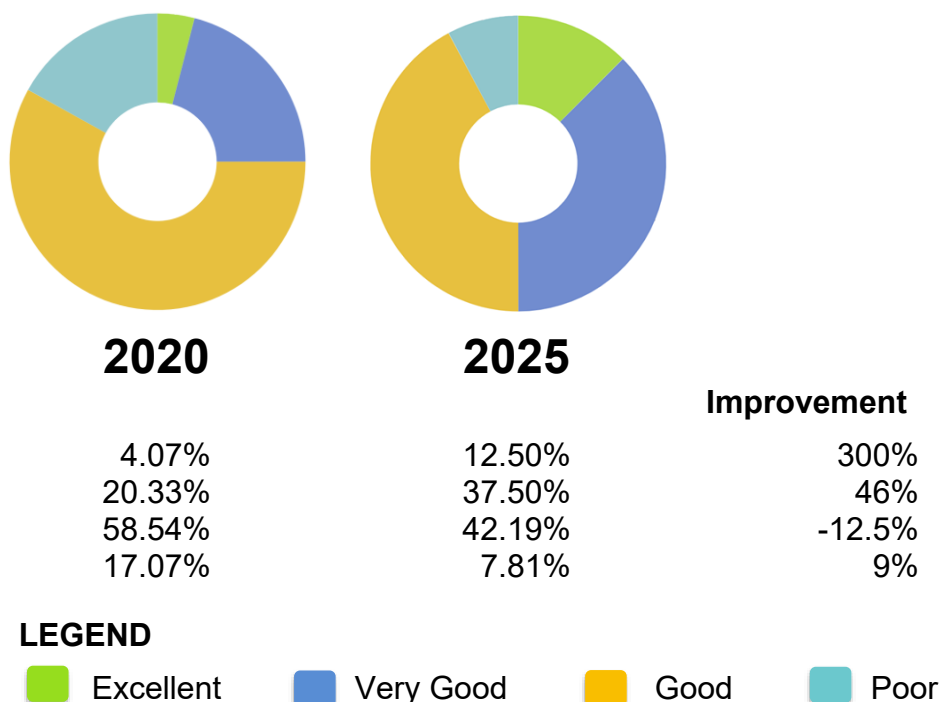
The following provides a summary of findings from the Staff Online Survey.

- Most staff rated the overall condition of Costa Mesa's Information Systems as Good (42.19%). The second highest rating was Very Good (37.50%).
- Overall, out of all City Information Systems, the Phone System was rated the lowest (31.25%). This was followed by E-Forms (26.32%) and Networks (15.00%).
- When asked which system requires the most improvement, the Phone System rated the highest (56.25%), followed by Application Software to do work (34.38%), and Infrastructure: Networks/ Communications (31.25%).



- In a question asking which web technology tool would be most likely to enhance customer service, E-Gov Apps were rated the highest (59.38%), followed by Online Videos (25.00%) and YouTube (23.44%).
- When asked how important it is for the City's website to provide online services the overwhelming answer was Very Important (78.13%) and Important (18.75%), for a combined total of 96.88%.
- In a question asking what online (interactive) or E-Government (online/transactional) service delivery application(s) staff would like to see the City implement to improve customer service, most selected City Intranet Update (57.69%), followed by Online Maps – Interactive map searches (43.86%), and Online Employee Self-Service (42.11%).
- When asked to rate the services provided by IT, Ongoing Technical Support and Help Desk and rated the highest with 29.31% and 25.86% as Excellent, respectively. Business Improvement and Staff Training rated the lowest, each with a 9.62% rating of Excellent.

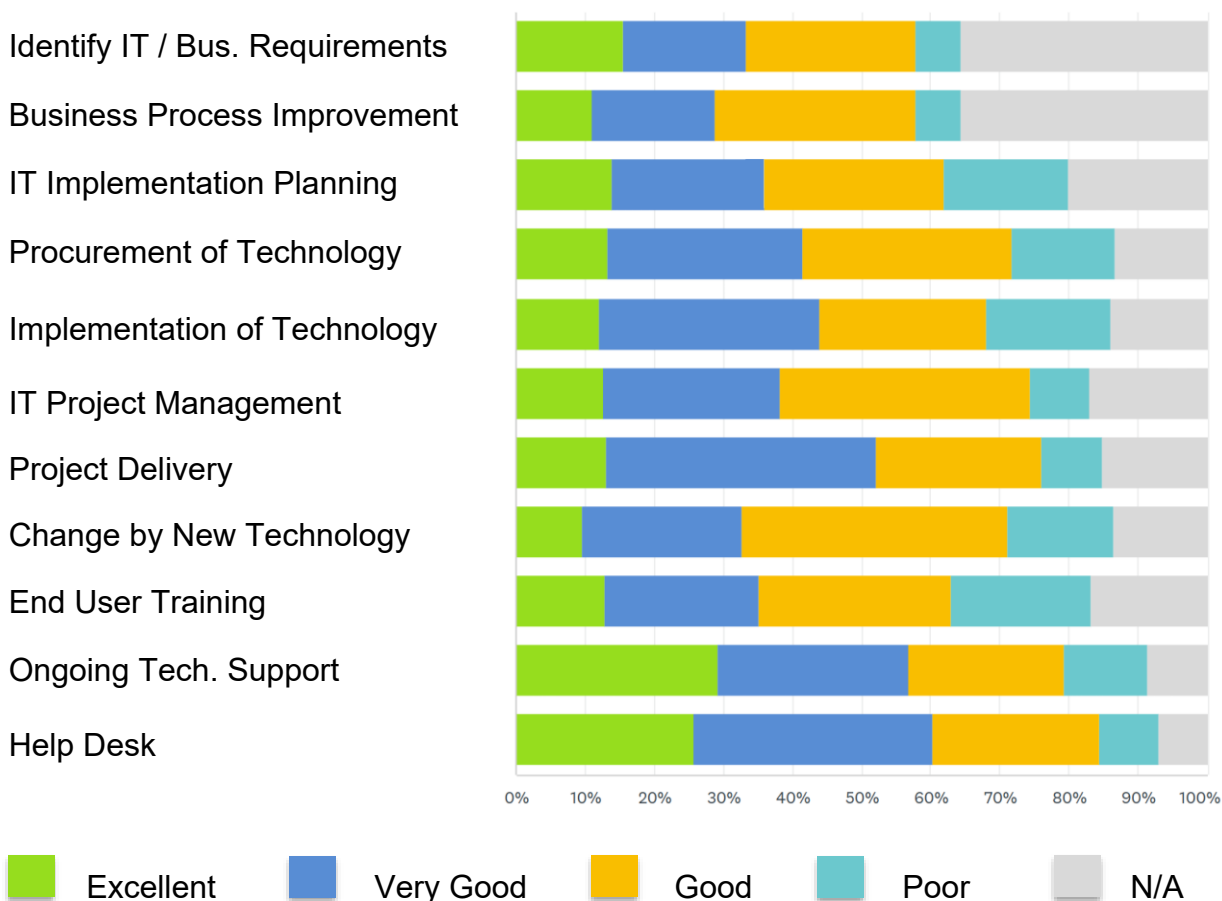
**Figure 3.3.1.1: Staff Rating of Overall Condition of Information Systems**



Since the original 2020 ITSP, the IT Department has significantly improved the IT landscape at the City. The organization and implementation best practices recommended in the original ITSP produced quantifiable improvements and measurable results.

The figure below provides an illustration of staff ratings of IT Department services.

**Figure 3.3.1.2: Staff Rating of Services Provided by IT Department**



### 3.4 Community Engagement

Community engagement is important in an IT Strategic Plan (ITSP) because it helps ensure that technology investments support the needs and expectations of the people who use City services. While many IT initiatives focus on internal operations, technology also plays a critical role in how residents access information, interact with government, and stay informed about community activities.



### 3.4.1 Online Community Survey

The following sections contain the results of the IT Strategic Plan Online Community Survey. This task used SurveyMonkey, a leading, commonly used online survey tool. The survey allowed community members the opportunity to provide input on the City's existing systems and customer experience.

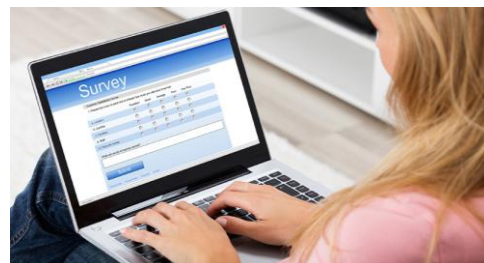
The online survey was posted from June 5 to June 22, 2025. A total of two hundred sixty-one (261) residents responded, an outstanding response. This represents the best response ThirdWave has received in a community survey in the last 10 years.

A Spanish version of this document was created, but only 2 partial responses were received. Consequently, those answers were not incorporated into the IT Strategic Plan.

#### 3.4.1.1 Resident Responses

The following provides a summary of findings from the Resident Community Online Survey.

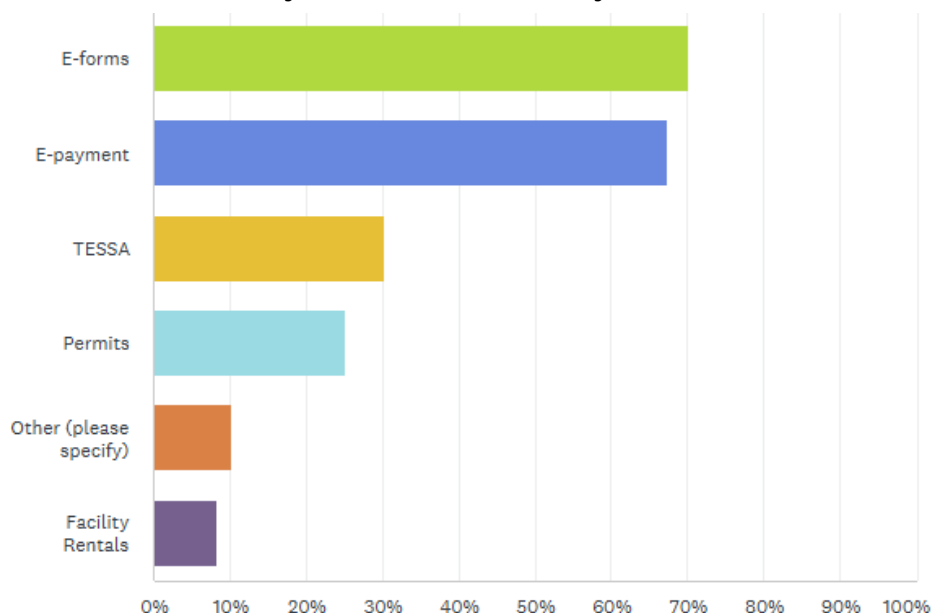
- The majority of respondents (95.02%) are residents.
- The largest number of respondents (58.24%) are in the 25-34 age group.
- When asked what primary language they speak at home, most spoke English (96.17%).
- Relatively speaking, City residents use the City's website regularly, at higher-than-average rates in ThirdWave's experience: Daily (31.98%), Weekly (27.48%), and Monthly (22.52%).
- With regards to computer technology, most respondents have home computers (78.83%), smartphones (75.23%), and notebooks or laptop computers (72.52%).
- A large percentage of respondents have broadband / high-speed internet / Wi-Fi access at home (85.97%). This is significant as it provides opportunities to provide online information and services.
- The City website services residents interact with most include: E-forms (70.09%), and E-payment (67.29%).
- When asked about the preferred method to access City services, the top three were: City Website (78.18%), Email (67.73%), and City Mobile App (65.45%). Consequently, attention should be placed on making the city website as effective as possible.
- When asked how important it is for the City's website to provide online services, the majority rated it as "Very Important" (68.72%) followed by "Important" (21.80%), totaling a high 90.52%.
- When asked to rate the City's website and their ability to complete online transactions (i.e., Obtain Permits, Pay Bills, Register for Events, Schedule Events), the top ratings were "Good," ranging from 61.64% to 34.11% of responses.



- When asked to rate the overall user experience of the City’s website, the highest rating was “Excellent” (39.29%).
- When asked to rate technologies enhancing user ability to access City information and services, Mobile Applications (90.04%) and Instagram (86.18%) rated the highest.

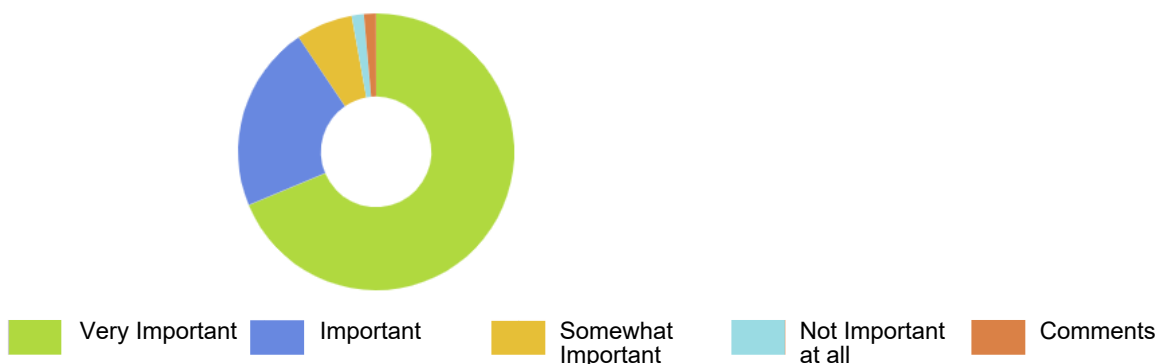
The following figure presents residents’ responses on City website services they use most frequently.

**Figure 3.4.1.1.1: Which City website services do you use the most often?**



The figure on the following page illustrates residents’ responses regarding the importance of providing online services on the City website.

**Figure 3.4.1.1.2: How important is it for the City's website to provide online services (e.g., E-payments, E-commerce, E-forms)?**



| Answer                    | Choices | Responses  |
|---------------------------|---------|------------|
| Very important            | 68.72%  | 145        |
| Important                 | 21.80%  | 46         |
| Somewhat important        | 6.64 %  | 14         |
| Not important at all      | 1.42%   | 3          |
| Comments:                 | 1.42%   | 3          |
| <b>Total Respondents:</b> |         | <b>211</b> |

### 3.4.1.2 Business Responses

The following provides a summary of findings from the Business Community Online Survey.

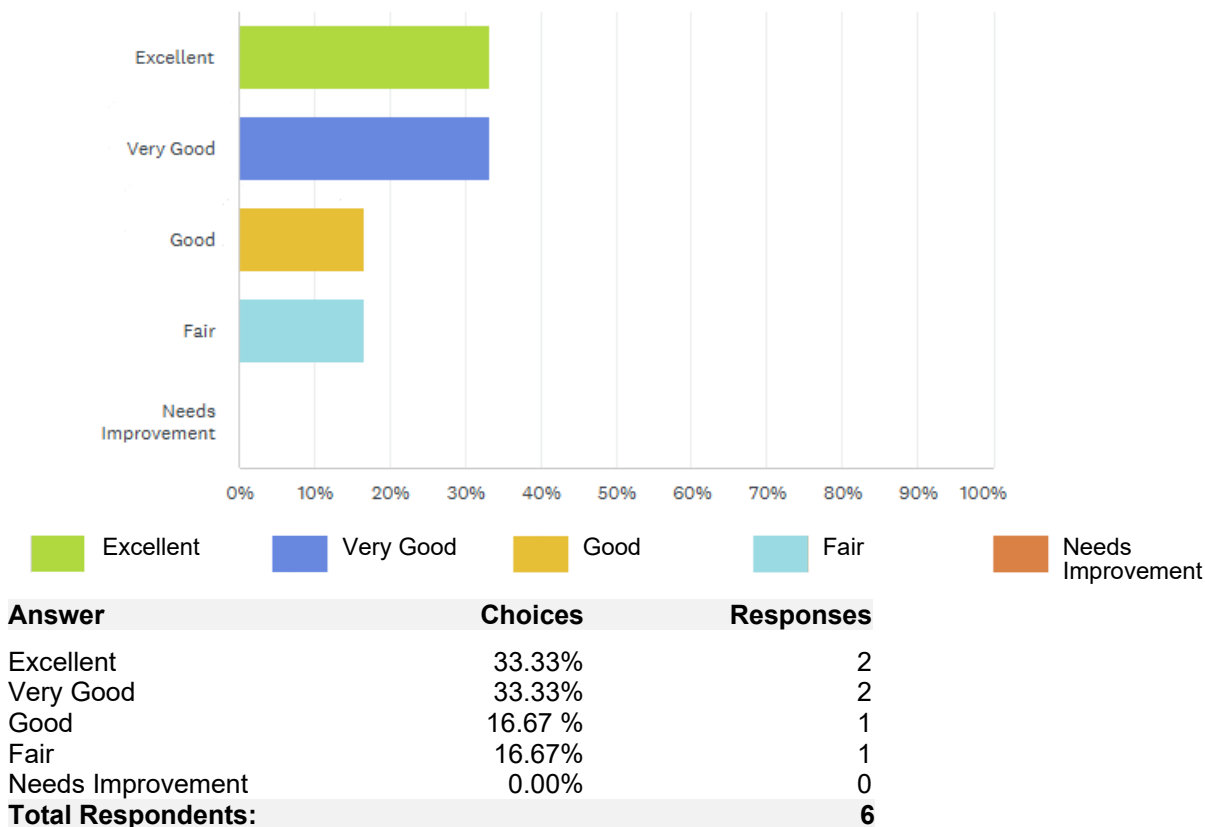
- Out of nineteen listed industries, all respondents were a part of four vertical industries: Industrial (33.33%), Information Technology (33.33%), Communication Services (16.67%), or Shipping (16.67%) industries.
- The City website department businesspersons interact with most include: City Manager (33.33%) and Economic & Development Services (33.33%).
- When asked about the preferred method to access City services, the top three were: Email (66.67%), City Mobile App (16.67%), and SMS / Text Message (16.67%).
- When asked how important it is for the City's website to provide online services, the majority rated it as "Very Important" (50.00%) followed by "Somewhat Important" (50.00%).
- When asked to rate the City's website and their ability to complete online transactions (i.e., Obtain Permits, Obtain Business Licenses, Pay Bills, Register for Events, Schedule Appointments), the top ratings were "Fair," ranging from 66.67% to 33.33% of responses.
- When asked to rate the overall user experience of the City's website, the highest ratings were equally "Excellent" (33.33%) and "Very Good" (33.33%).



- When asked to rate technologies enhancing user ability to access City information and services, Online Videos (83.33%), X (Twitter) (66.67%), and Instagram (66.66%) rated the highest.

The figure below summarizes how businesses rated their overall experience using the City website.

**Figure 3.4.1.2.1: Rate your overall experience using the City’s website.**



### 3.4.1.3 Visitor / Tourist / Commuter Responses

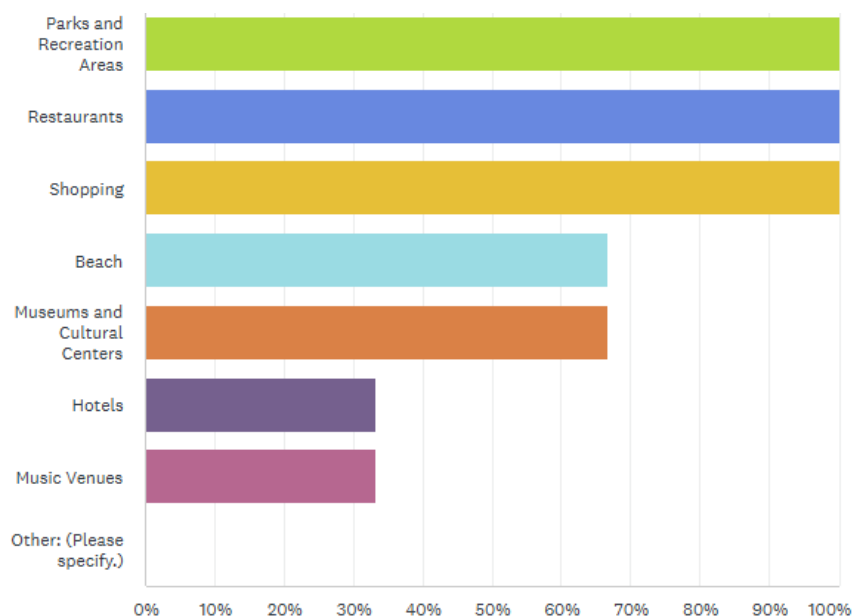
The following provides a summary of findings from the Visitor / Tourist / Commuter (visitors) Community Online Survey.

- When asked how often they visit the City's website, visitors equally access the site once per year (33.33%), Once per Month (33.33%), and Once a Week (33.33%).
- When asked to describe what kind of visitor best describes them, the grand majority chose Local Visitor (66.67%) and State (from California) (33.33%).
- With regards to which digital service they use as a tourist, almost all choices were selected evenly across.
- When asked which they frequent the most, majority of visitors chose parks and recreations areas (100.00%), restaurants (100.00%), and shopping (100.00%).



The following figure presents responses from visitors, tourists, and commuters on the amenities they most frequently use.

**Figure 3.4.1.3.1: Which of the following do you frequent the most?**

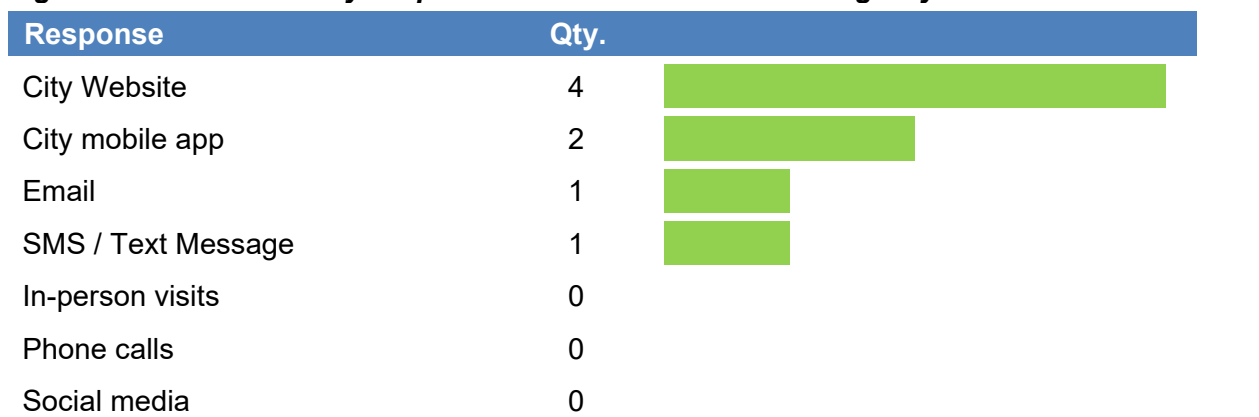


### 3.4.2 Community Workshop

The Community Workshop was held on June 16, 2025 in the City of Costa Mesa City Hall Community Room. A total of four (4) residents and one (1) businessperson attended. The following contains the results workshop.

The following figure provides an illustration of the responses by Community Workshop attendees in response to their preferred methods for accessing City services.

**Figure 3.4.2.1: What are your preferred methods for accessing City services?**



#### 3.4.2.1 Community Workshop Summary

Residents expressed a strong desire for improved access to information, particularly regarding City documents, project status, and real-time communications. The most frequently cited need was the ability to quickly locate accurate information through enhanced search capabilities, centralized document management, and more transparent project tracking. Addressing these challenges would improve transparency, strengthen public engagement, reduce time spent searching for information, and enhance community trust and awareness.

### 3.5 City Council Engagement

City Council input was gathered through a questionnaire. The following IT challenges and potential solutions were identified as the most significant:

- AI option / icon on web interfaces so the public can ask for information in natural language.
- An efficient, accurate, and responsive building permitting process.
- Ensuring the CM 311 app is functioning at optimal levels.

Council members were asked to rate the relative importance of various IT as it applies to supporting and/or realizing the City Council Goals. Their answers are shown below.

**Figure 3.5.1: City Council Key Findings**

| City Council Goals |                                                                        |   |                                                                                       |
|--------------------|------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------|
| 1.                 | Maintain and enhance the City's facilities, equipment, and technology. | 1 |    |
|                    |                                                                        | 2 |                                                                                       |
|                    |                                                                        | 3 |                                                                                       |
|                    |                                                                        | 4 |                                                                                       |
| 2.                 | Strengthen the public's safety and improve the quality of life.        | 1 |    |
|                    |                                                                        | 2 |   |
|                    |                                                                        | 3 |                                                                                       |
|                    |                                                                        | 4 |                                                                                       |
| 3.                 | Achieve long-term fiscal sustainability.                               | 1 |  |
|                    |                                                                        | 2 |  |
|                    |                                                                        | 3 |                                                                                       |
|                    |                                                                        | 4 |                                                                                       |
| 4.                 | Recruit and retain high-quality staff.                                 | 1 |  |
|                    |                                                                        | 2 |                                                                                       |
|                    |                                                                        | 3 |  |
|                    |                                                                        | 4 |                                                                                       |
| 5.                 | Diversify, stabilize and increase housing to reflect community needs.  | 1 |                                                                                       |
|                    |                                                                        | 2 |                                                                                       |
|                    |                                                                        | 3 |  |
|                    |                                                                        | 4 |  |
| 6.                 | Advance environmental sustainability and climate resiliency.           | 1 |                                                                                       |
|                    |                                                                        | 2 |                                                                                       |
|                    |                                                                        | 3 |  |
|                    |                                                                        | 4 |  |

### 3.6 Rapid Workflow® Workshops

A comprehensive assessment of citywide operational and service delivery requirements was carried out in the ITSP project. ThirdWave's patented Rapid Workflow® Business Process Improvement workshops were held with business process owners/subject matter experts.

The workshops encompassed a detailed analysis of mission-critical business functions listed below. Business challenges and opportunities for improvements that might be addressed with Information Technologies, Business Process Change and/or Policy Change were reviewed with staff and management.

Eleven (11) Rapid Workflow® As-Is workshops were held from July 8, 2025 to October 28, 2025. Staff attendance and input was outstanding.

Thirty-seven (37) staff participated, with some staff participating in up to five (5) workshops. Consequently, participation in the workshops totaled sixty-eight (68) staff and management. The following workshops were held.

1. City Manager's Office - Constituent Relations Management
2. Fire - IT Support Model for Fire Dept
3. CMMS - Costa Maintenance WO
4. Public Works - Asset Management
5. Public Works - CIP
6. Economic Development & Services - Opening a Business
7. EOC - Communications
8. Police - CAD & Real Time Information Center
9. City Clerk - Records Management
10. Enterprise - Council Strategic Planning Goals
11. Enterprise - CRM and Public Engagement Software

The data collected informed the ITSP initiatives shown in Section 4.2 of this document and was used to prioritize initiatives in the *ITSP Roadmap* document.

Figure 3.6.1, Sample Rapid Workflow® Business Process Map, on the next page provides a visual sample (it is not meant to be legible) of a process map produced with City stakeholders.

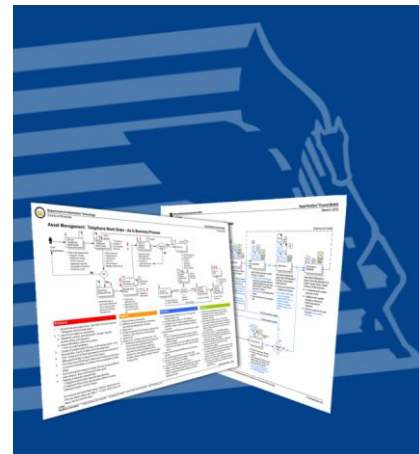


**Figure 3.6.1: Sample Rapid Workflow® Business Process Map**

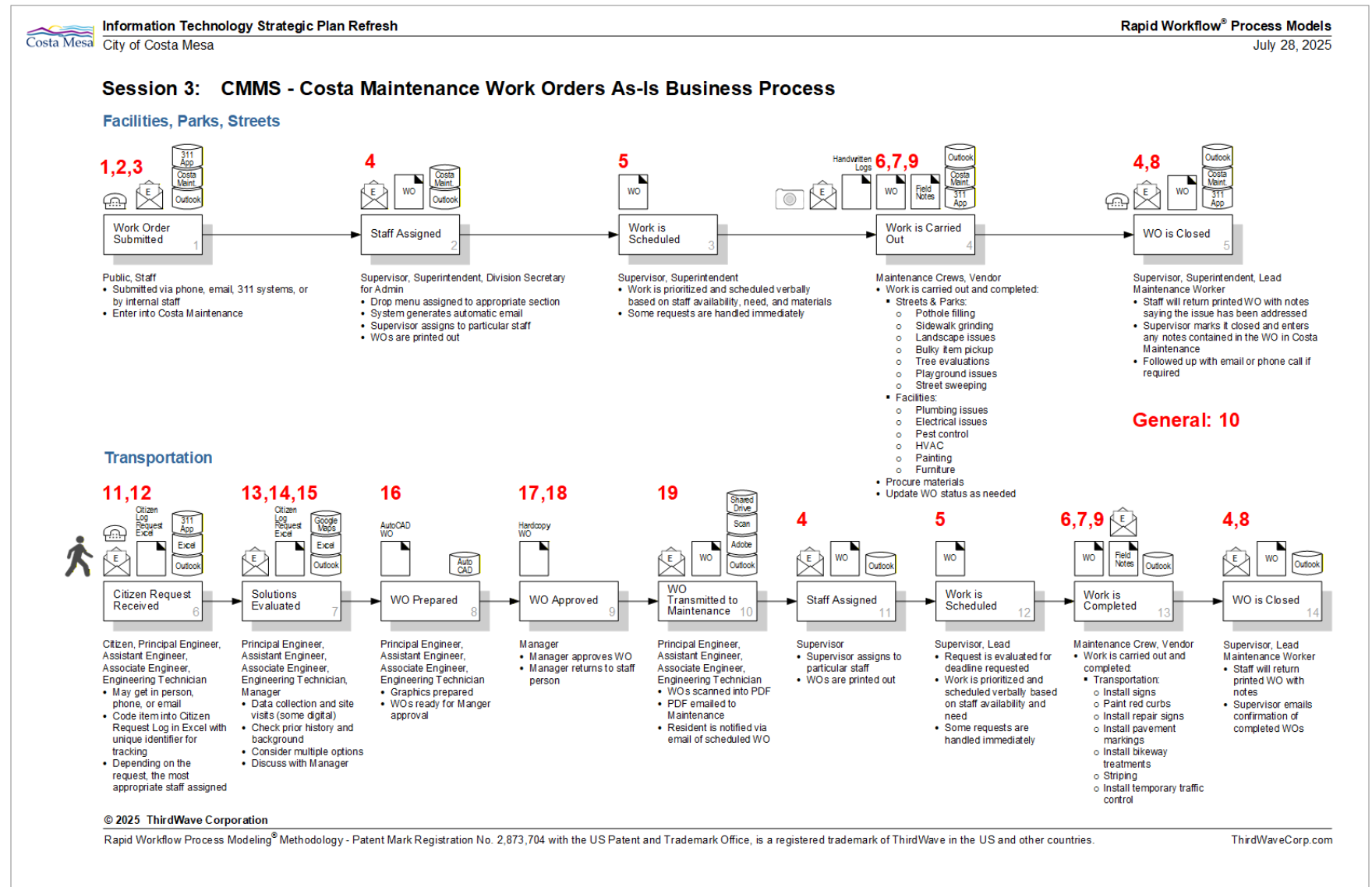


**Figure 3.6.2: Sample Rapid Workflow® Business Process Narrative**



Information Technology Strategic Plan Refresh  
City of Costa Mesa

Rapid Workflow® Process Models  
July 28, 2025

Session 3: CMMS - Costa Maintenance Work Orders As-Is Business Process

Problems

Facilities, Parks, Streets

1. Two separate systems that don't communicate, i.e., 311 and Costa Maintenance.

2. 311 nonspecific requests.

3. 311 requests submitted to the wrong department.

Lack of appropriate category.

4. WOs are printed out.

5. Verbally assigning WOs.

6. Updating WOs in hardcopy.

7. WO categories are not in Costa Maintenance dropdowns.

8. Supervisor has to mark closed instead of doing it out in the field.

9. Keeping separate handwritten logs.

10. Not able to create Year End Reports.

Transportation

11. Not an automated system.

12. Nonspecific requests received via email, phone, and in person.

13. Reviewing prior history is a challenge. Have to go to staff and rely on institutional knowledge to check prior history.

14. Have the data in Excel, or not having the data in a single location.

15. Manager availability. Can be busy.

16. QAQC.

17. Manager approval in hardcopy.

18. May have hardcopy WO iterations, back and forth discussions before a WO is approved.

19. Scanning and emailing WOs.

Impacts

Facilities, Parks, Streets

1. - Inefficiencies.

- Staff time.

- Customer service.

2. - Inefficient back and forth with residents.

- Same as #1.

3. - Same as #1.

4. - Inefficiencies.

- Cost of paper.

- Missing documents.

5. - No way of knowing what is going on.

- No record of resources being used.

- Only the Supervisor has the knowledge.

6. - Inefficiencies.

- Cannot leverage information on paper.

7. - Only City facilities appear in dropdowns.

- Inability to evaluate, track, and search.

- Inability to justify resource needs.

8. - Staff time.

- Time delay to customer service.

- Inefficiencies.

9. - Inefficiencies.

- Hand written information may not be legible.

10. - Not being able to evaluate and justify resources for staffing and budget requests.

- Harder to gather data.

- Inability to leverage data to provide to other departments, to identify trends and reoccurrences.

- Inability to graphically illustrate maintenance repairs and needs, spatially and/or by Council District.

Transportation

11. - Same as #1.

12. - Poor customer experience.

13. - Might overlook past history or prior decisions.

- Inconsistency in actions.

14. - May collect data they already have.

- May overlook data.

15. - Time delays.

16. - Poor service.

17. - Time delays.

18. - Quality.

- Time delays.

19. - Time delays.

- Staff time.

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## Session 3: CMMS - Costa Maintenance Work Orders As-Is Business Process

### Solutions

#### Features & Functions

- Electronic Work Orders
- Update workorders electronically.
- Categories of WOs:
  - Streets & Parks:
    - Pothole filling
    - Sidewalk grinding
    - Landscape issues
    - Bulky item pickup
    - Tree evaluations
    - Playground issues
    - Street sweeping
    - Etc.
  - Facilities:
    - Plumbing issues
    - Electrical issues
    - Pest control
    - HVAC
    - Painting
    - Furniture
    - Etc.
  - Transportation:
    - Install signs
    - Paint red curbs
    - Install repair signs
    - Install pavement markings
    - Install bikeway treatments
    - Striping
    - Install temporary traffic control
    - Etc.
- Close WOs electronically in the field.
- Ability to provide comments in WOs.
- Log Categories:
  - Pothole Log:
    - Date
    - Location
    - Worker
    - Work Performed
  - Sidewalk Grinding Log
    - Date
    - Location
    - Size of offset
    - Worker
    - Description
  - Bulky Item Pickup Log
    - Mattress
  - Playground Repair Log
    - Date
    - Location
    - Worker
    - Description
  - Transportation Requests: Identify specific attributes:
    - Location
    - North, South, East, West
    - Description
    - Geocoding
    - City boundaries
  - Contemporary Graphical User Interface:
    - Dropdowns:
      - Limb down
      - Tree down
      - Tree evaluation
  - One central system for everybody.
  - Workflow:
    - Routing
    - Notifications
    - Review & Approve
    - Review & Return for Edits
    - Delegation
    - Forms
    - E-signatures
  - Database of history:
    - Prior efforts at location
  - Tracking database of traffic and speed data.
  - Transportation:
    - Install signs
    - Paint red curbs
    - Install repair signs
    - Install pavement markings
    - Install bikeway treatments
    - Striping
    - Install temporary traffic control
    - Etc.

### Benefits

#### Facilities, Parks, Streets

1. - Efficient.
  - Faster delivery of service.
  - Less confusion.
  - Easy to train.
2. - More efficient.
  - More clarity.
  - Better identifies what the need is.
3. - Same as #2.
4. - More efficient.
  - Hardcopy would not get lost.
  - Accountability.
5. - Same as #2.
6. - Same as #4.
7. - More user friendly, more accurate reports.
  - Reduce staff time.
8. - Same as #4.
9. - Information would be in one place.
  - More efficient.
  - Less staff time.
  - User friendly reports.
10. - Better reporting.
  - Better evaluation.

#### Transportation

11. - Same as #1.
12. - Same as #2.
13. - Consistency.
  - Better solution outcome.
14. - More rapid decision making.
  - Avoid duplicate data collection.
15. - Efficiency.
16. - Same as #15.
17. - Same as #15.
18. - Higher quality outcome.
  - Better efficiency.
19. - Staff time savings.

- Citizen Log:
  - Name
  - Date
  - How received
  - Issue
  - Location
  - Action
  - Status
- Web enabled.
- Appropriate access and security levels.

#### Facilities, Parks, Streets Reports

- Response to Claim Report (Costa Maintenance)
- Pothole Log Claims
- Reports by Location
- Claim Reports
- Incident Reports
- Type of Work
- Assigned To Reports
- Work Performed Reports
- Year End Reports
- Ad Hoc Reports

#### Transportation Reports

- Total Volume of Citizen Requests by type:
  - Parking
  - Street Sweeping
  - Etc.
- Geographic Mapping by category

#### Interfaces

- GIS
- 311
- TAGRS

#### Other

- Improve 311 prompts.

### 3.7 Leading Technology Initiatives

The ITSP project identified numerous Information Technology initiatives related to infrastructure, hardware, software solutions and IT Operations. The figures on the following pages provide a matrix of all operational and technology initiatives identified in the project. It bears noting that the initiatives identified in the figures starting with Figure 3.7.2 are for reference purposes; the list will be reviewed and prioritized in the *ITSP Roadmap document*.

**Figure 3.7.1: Sample Enterprise Initiative Matrix**

|     |                | Software Departmental |    |    |    |    |    |    | Software Enterprise |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| No. | Rapid Workflow | Business Process      |    |    |    |    |    |    |                     |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1   | Public Works   | Facilities Managemnt  | 11 | 12 | 13 | 14 | 15 | 16 | 17                  | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

#### How to read the matrices:

The enterprise initiative matrices provide a list of Rapid Workflow® process workshops, IT Focus Groups and Management Interview requirements on the left column. Each square symbol on that line indicates an IT initiative identified in that workshop, focus group or management interview. The technology initiative is denoted above in the vertical text. In this illustration, the first initiative for the Public Works Facilities Management workshop is Enterprise Content Management; the second initiative is Enterprise Records Management, and so on.

Detailed descriptions for each ITSP initiative are provided in Section 4, Information Technology Strategic Plan Recommendations, in this document.

The figures on the following pages (Figures 3.7.2 through 3.7.7) illustrate where each of the initiatives was identified in the ITSP project, e.g., management interviews, IT Focus Groups, or Rapid Workflow® workshops. This is important for traceability purposes; in future years of the ITSP Implementation Roadmap, Agency staff will be able to reference where recommendations came from.

**Figure 3.7.2: Infrastructure & Hardware Requirements**

**Legend:**

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- Web Initiatives
- Application Integration Initiatives



**Figure 3.7.3: Department Software Requirements**

**Legend:**

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- Web Initiatives
- Application Integration Initiatives

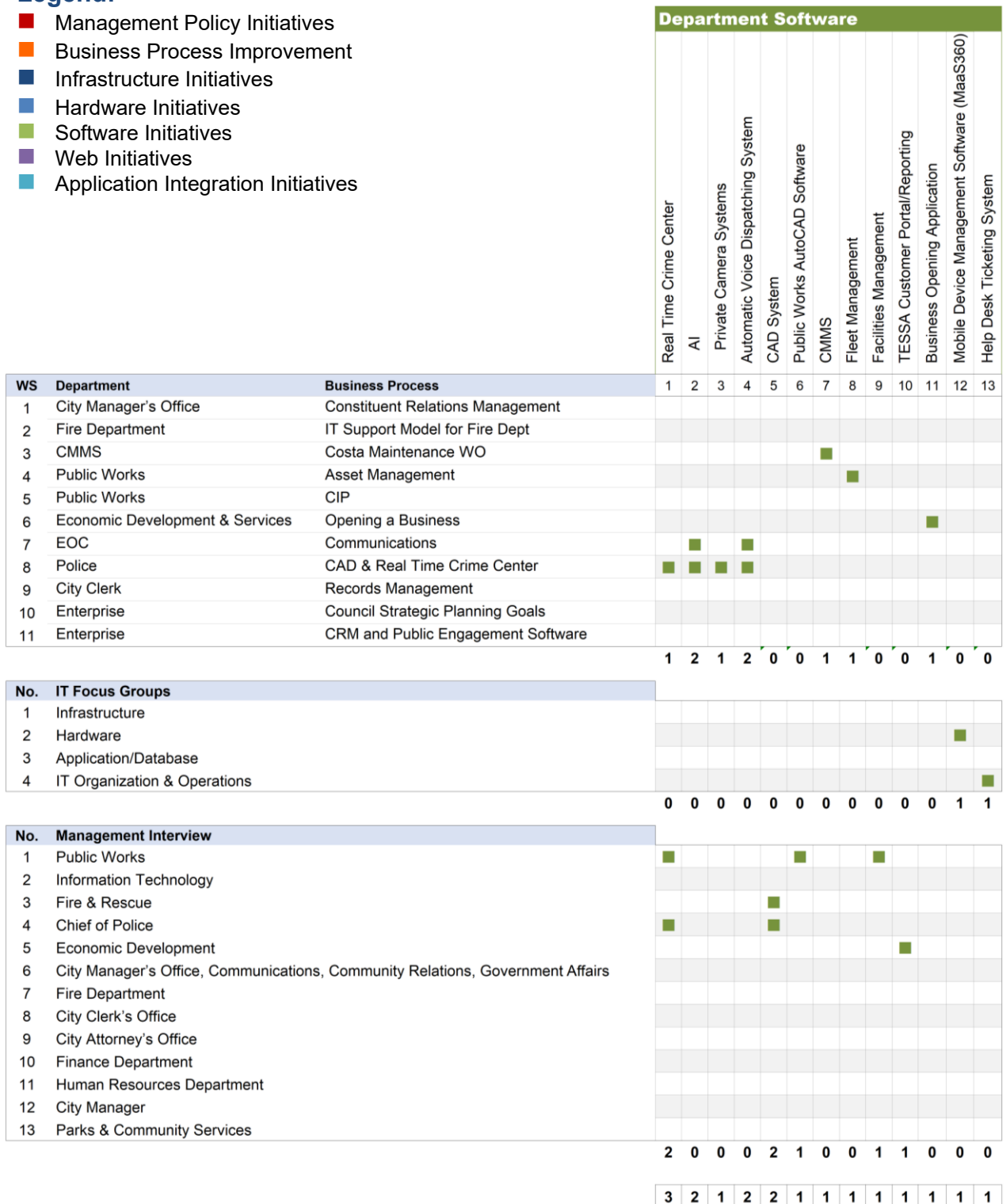


**Figure 3.7.4: Enterprise Software Requirements**

**Legend:**

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- Web Initiatives
- Application Integration Initiatives

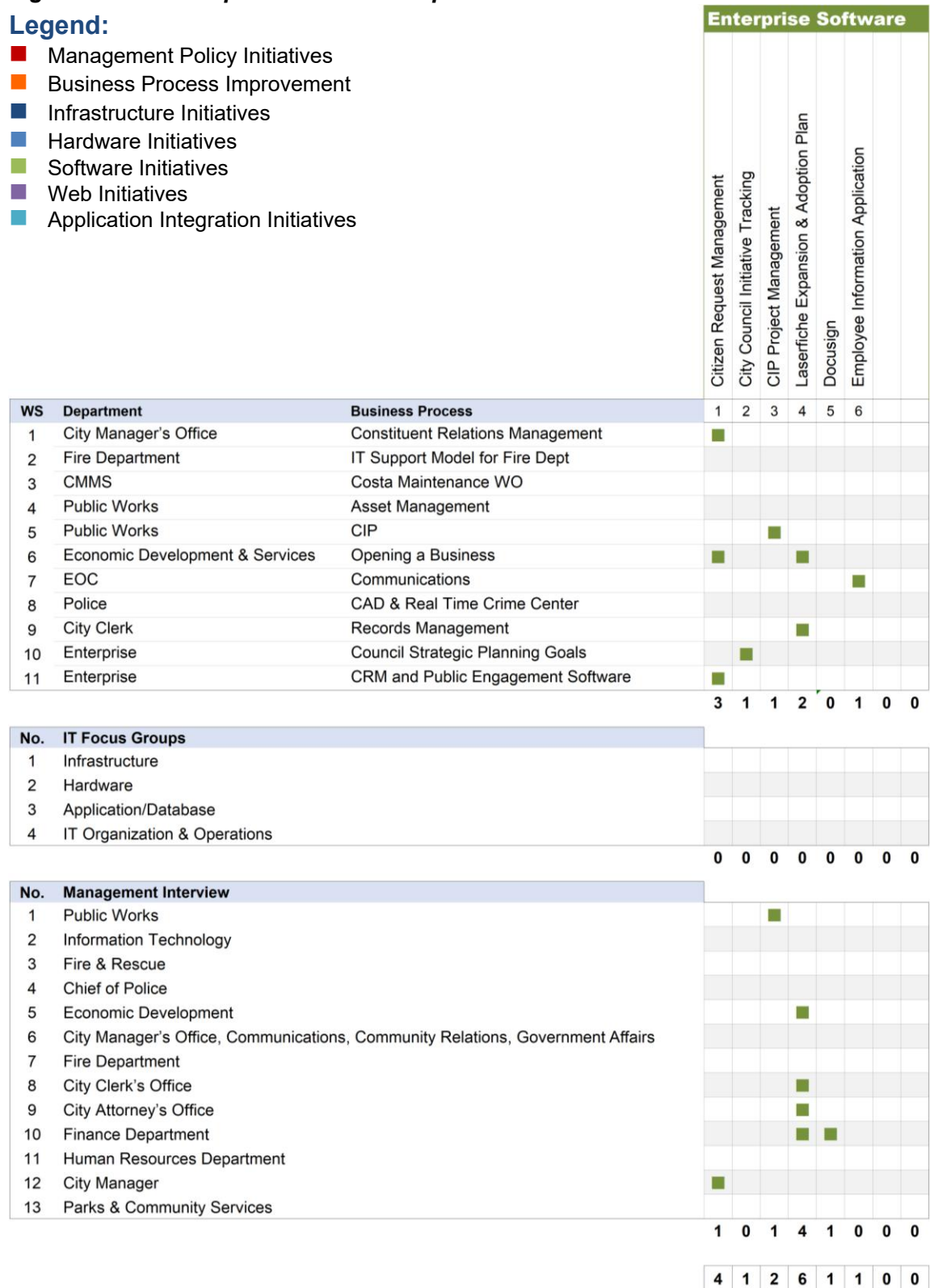


**Figure 3.7.5: Web Initiatives & Interfaces**

**Legend:**

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- Web Initiatives
- Application Integration Initiatives

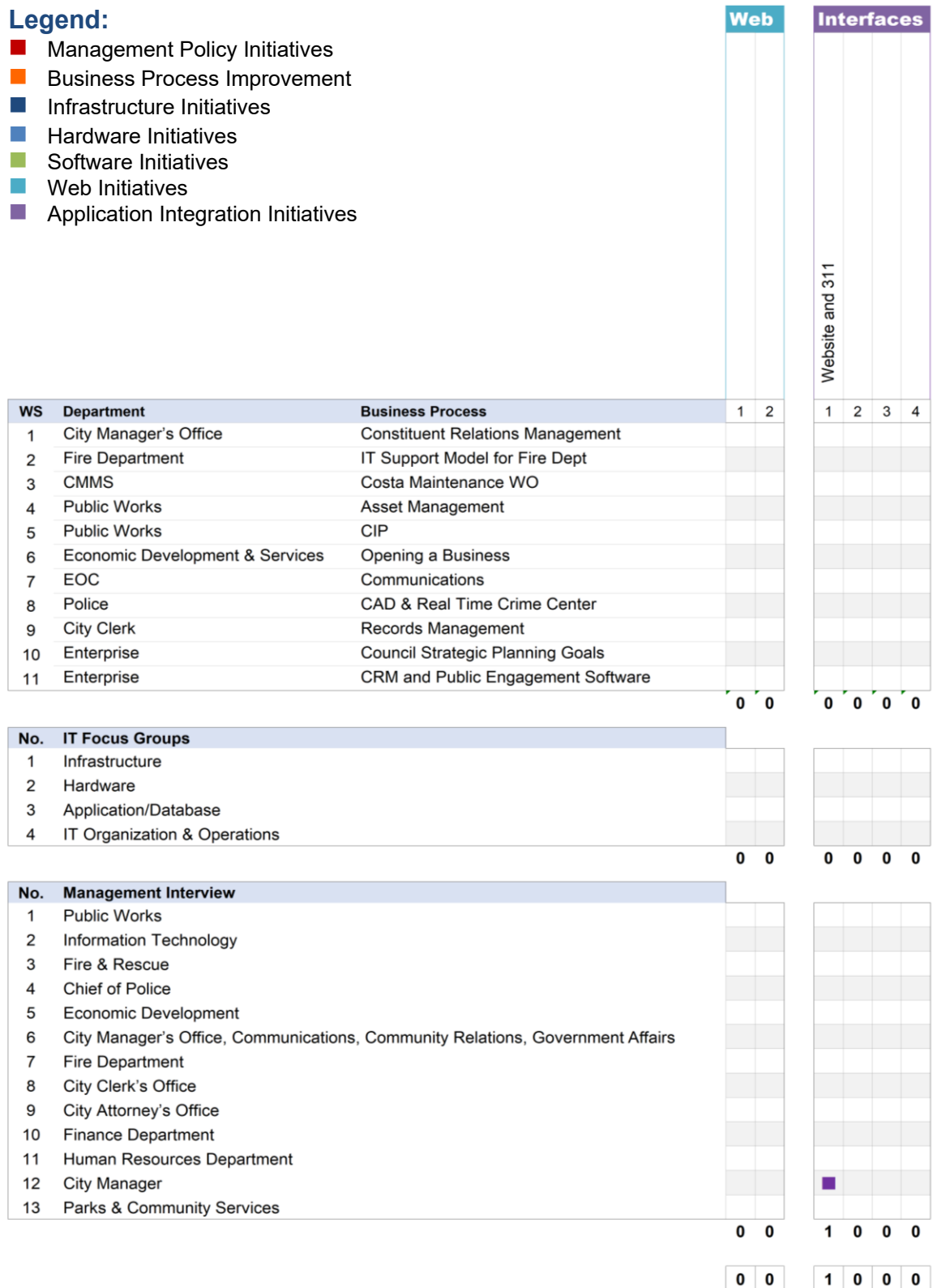
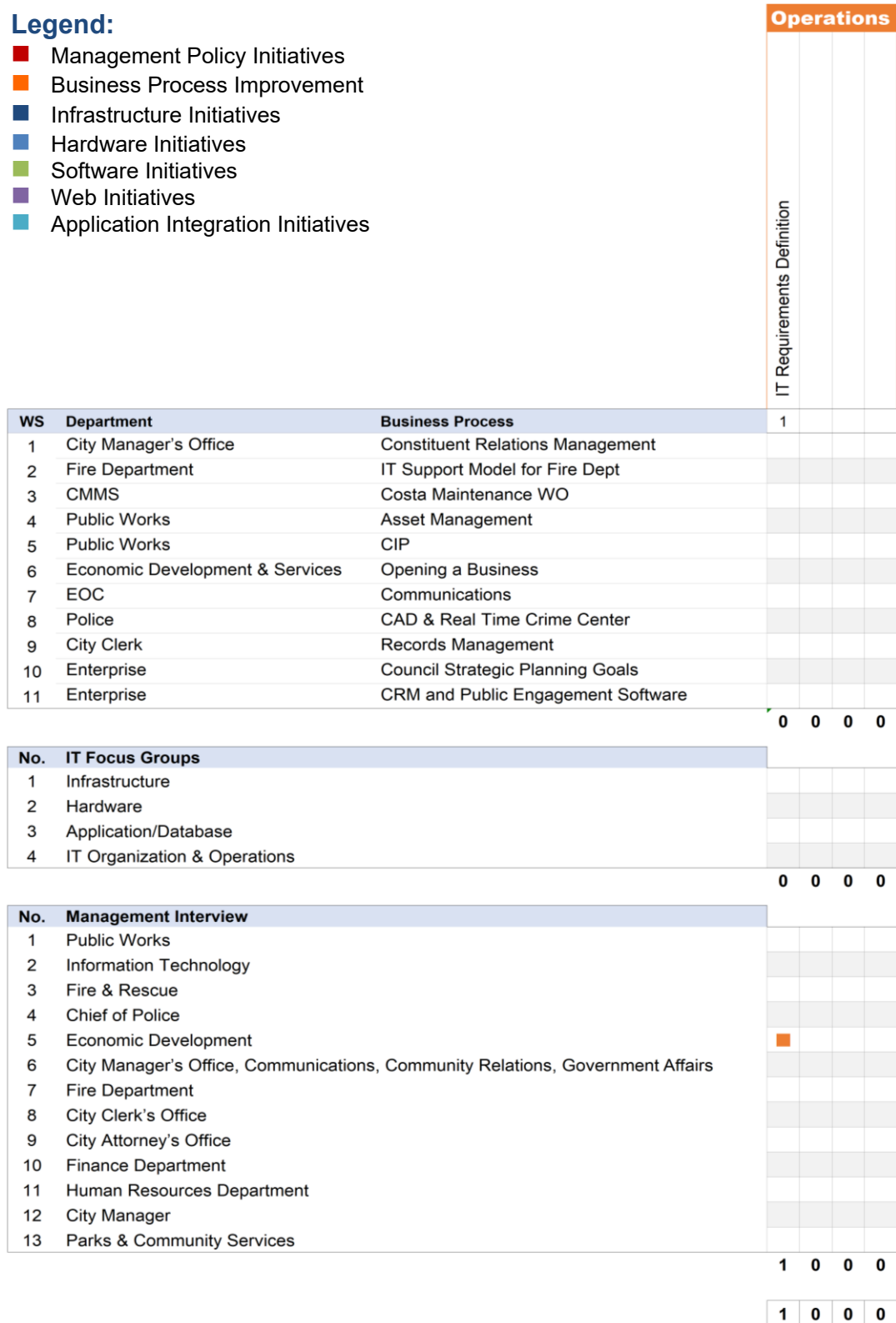


**Figure 3.7.6: Operational Policies & Practices**

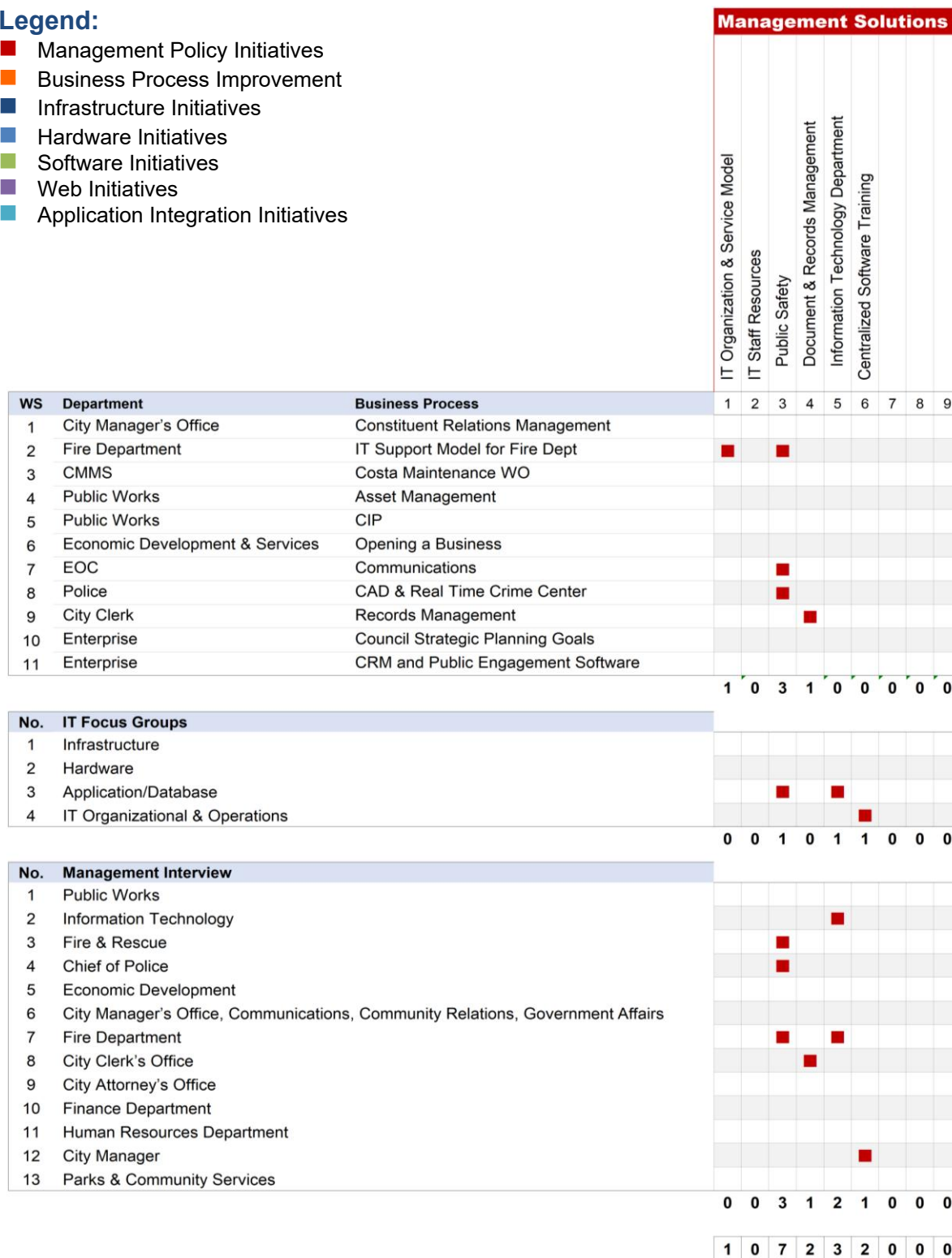
**Legend:**

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- Web Initiatives
- Application Integration Initiatives



### Legend:

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- Web Initiatives
- Application Integration Initiatives



The figure below provides a summarized list of technology initiatives identified in the ITSP project Enterprise Initiative Matrix<sup>®</sup> shown in the previous pages. ITSP initiatives are grouped by type of technology. However, the initiatives below are not prioritized over the five years; initiatives are prioritized in the companion document to this report, *ITSP Roadmap* document.

## Legend

| Type of Initiative |                                   | Source |                                           |
|--------------------|-----------------------------------|--------|-------------------------------------------|
| M                  | Management Initiatives            | ITFG   | IT Focus Group                            |
| OPS                | IT Operation Initiative           |        | (1, 2, 3, or 4 indicates the focus group) |
| INF                | Infrastructure Systems Initiative | MI     | Management Interview                      |
| HW                 | Hardware Initiative               |        | (1 through 13 indicates the interview)    |
| D SW               | Departmental Software Initiative  | RW     | Rapid Workflow <sup>®</sup> workshops     |
| E SW               | Enterprise Software Initiative    |        | (1 through 11 indicates the workshop)     |
| W                  | Web Initiative                    | ITD    | IT Department                             |

The list below reflects initiatives that were included in the final ITSP Implementation Roadmap. This list is considerably shorter than the final Findings & Recommendations. This list of initiatives is also reflected in the Implementation Roadmap, Budget, and Timeline. The abbreviations and numbering, e.g., INF, HW, SW, in the list below are consistent in the Roadmap. **However, descriptions of all initiatives are reflected in Section 4.2, whether they were included in the Roadmap or not for future reference, should funding become available.**

**Figure 3.7.8: ITSP Technology Initiatives (Not Prioritized)**

| No.                       | Abbr.   | Type of Initiative                         | Qty. | Source           |
|---------------------------|---------|--------------------------------------------|------|------------------|
| <b>INF Infrastructure</b> |         |                                            |      |                  |
| 1.                        | INF 1   | City Hall + PD Multi Factor Authentication | 1    | IT Dept. [ITFG1] |
| 2.                        | INF 2   | City Hall EOC and PD UPS                   | 1    | IT Dept. [ITFG1] |
|                           | INF 3   | Core Switches                              | 1    | IT Dept. [ITFG1] |
| 3.                        | INF 3.1 | HP Core Switches: City Hall                | 1    | IT Dept. [ITFG1] |
| 4.                        | INF 3.2 | HP Core Switches: PD                       | 1    | IT Dept. [ITFG1] |
| 5.                        | INF 4   | Implement SIEM System                      | 1    | IT Dept. [ITFG1] |
|                           | INF 5   | Meraki Wireless Upgrades                   | 1    | IT Dept. [ITFG1] |
| 6.                        | INF 5.1 | Meraki Wireless Upgrade                    | 1    | IT Dept. [ITFG1] |
| 7.                        | INF 5.2 | Meraki Wireless Upgrade                    | 1    | IT Dept. [ITFG1] |
| 8.                        | INF 6   | Communications Raised Floors Replacement   | 1    | IT Dept. [ITFG1] |
| 9.                        | INF 7   | Replace Existing Firewalls                 | 1    | IT Dept. [ITFG1] |
| 10.                       | INF 8   | Dispatch Systems                           | 1    | EOC [RW7]        |
| 11.                       | INF 9   | PD Enterprise Server Replacement           | 1    | IT Dept. [ITFG1] |
| 12.                       | INF 10  | City Hall Enterprise Server Replacement    | 1    | IT Dept. [ITFG1] |
| 13.                       | INF 11  | Redundant Internet                         | 1    | IT Dept. [ITD]   |

| HW Hardware: Servers, Workstations, Peripherals                             |          |                                             |   |              |                                 |
|-----------------------------------------------------------------------------|----------|---------------------------------------------|---|--------------|---------------------------------|
|                                                                             | HW 1     | Nimble SAN Replacement                      | 1 | IT Dept.     | [ITFG2]                         |
| 14.                                                                         | HW 1.1   | PD Nimble SAN Replacement                   | 1 | IT Dept.     | [ITFG2]                         |
| 15.                                                                         | HW 1.2   | City Hall Nimble SAN Replacement            | 1 | IT Dept.     | [ITFG2]                         |
|                                                                             | HW 2     | PC/Laptop Device Replacement                | 1 | IT Dept.     | [ITFG2]                         |
| 16.                                                                         | HW 2.1   | PC/Laptop Device Replacement Program        | 1 | IT Dept.     | [ITFG2]                         |
|                                                                             | HW 3     | Council Chambers AV                         | 1 | City Manager | [ITFG2]                         |
| 17.                                                                         | HW 3.1   | Council Chambers AV                         | 1 | City Manager | [ITFG2]                         |
| 18.                                                                         | HW 3.2   | Council Chambers AV                         | 1 | City Manager | [ITFG2]                         |
| 19.                                                                         | HW 4     | Public Safety Mobile Data Computers         | 1 | Police       | [ITFG2]                         |
| D SW Software: Department                                                   |          |                                             |   |              |                                 |
| 20.                                                                         | D SW 1   | Public Works AutoCAD Software               | 1 | Public Works | [MI1]                           |
| 21.                                                                         | D SW 2   | Business Opening Application                | 1 | Econ. Dev.   | [RW6]                           |
| 22.                                                                         | D SW 3   | Mobile Device Management Software (MaaS360) | 1 | IT Dept.     | [ITFG2]                         |
| E SW Software: Enterprise                                                   |          |                                             |   |              |                                 |
| 23.                                                                         | E SW 1   | Citizen Request Management                  | 4 | City Manager | [RW1,RW6,RW11,MI12]             |
| 24.                                                                         | E SW 2   | City Council Initiative Tracking            | 1 | City Manager | [RW10]                          |
| 25.                                                                         | E SW 3   | CIP Project Management Software             | 2 | Public Works | [RW5,MI1]                       |
| 26.                                                                         | E SW 4   | Laserfiche Expansion & Adoption Plan        | 6 | City Clerk   | [RW6,RW9,MI5,8,9,10]            |
| 27.                                                                         | E SW 5   | Docusign                                    | 1 | Enterprise   | [MI10]                          |
|                                                                             | E SW 6   | AI Tools                                    | 2 | Police       | [RW7,RW8]                       |
| 28.                                                                         | E SW 6.1 | AI Tools                                    | 2 | Police       | [RW7,RW8]                       |
| INT Interfaces                                                              |          |                                             |   |              |                                 |
| None. Initiatives were moved to Section 4.2.4 To Be Determined Initiatives. |          |                                             |   |              |                                 |
| O IT Operational Improvements                                               |          |                                             |   |              |                                 |
| None. Initiatives were moved to Section 4.2.4 To Be Determined Initiatives. |          |                                             |   |              |                                 |
| M Management Policies                                                       |          |                                             |   |              |                                 |
|                                                                             | M 1      | Information Technology Resourcing           | 1 | IT Dept.     | [RW2,MI2,MI7,ITFG3,Survey]      |
| 29.                                                                         | M 1.1    | Public Safety App Analyst                   | 7 | PD,FD        | [RW2,RW7,RW8,ITFG3,MI3,MI4,MI7] |
| 30.                                                                         | M 1.2    | TESSA App Analyst                           | 1 | IT Dept.     | [MI2, MI7, ITFG3]               |

## Section 4 ITSP Recommendations



### 4.1 Introduction to ITSP Recommendations

The following pages provide the findings and recommendations for the ITSP. This reflects City of Costa Mesa's input, IT industry best practices, ThirdWave's 38 years of experience in this area and 176 similar projects we have conducted.

This section of the ITSP includes a description of technology initiatives reflecting input provided in all phases of the project. This document captures all solutions discussed throughout the project.



**It is important to note all solutions identified in Figures 3.7.2 through 3.7.7 may not be included in Section 4.2, ITSP Implementation Roadmap Initiatives. The fact that a solution was mentioned by City staff in a requirements definition task does not automatically constitute a recommendation. The ITSP does not include initiatives that lacked a compelling business case or justification. Therefore, there is not a one-to-one relationship with items in the figures listed above and recommended solutions in the following pages.**

**Additionally, some initiative writeups in this document do not appear in the *ITSP Roadmap*. They were identified as "To Be Determined" in the *ITSP Roadmap* document due to limited funding.**

The City of Costa Mesa can use this document, however, as a reference document over the next five years to revisit all solutions identified during the ITSP project.

## 4.2 ITSP Implementation Roadmap Initiatives

This section provides a description of IT solutions identified in various tasks of the ITSP project, including infrastructure, hardware and software initiatives.

### 4.2.1 Technology Recommendations

The following City of Costa Mesa-wide technology recommendations are informed by all phases of discovery and requirements definition tasks of the ITSP project. Recommendations synthesize staff input and industry best practices, as appropriate, for the City's technological landscape and organizational culture.

The findings identified here relate to technology issues, but in some cases, operational and management issues are also referenced in these findings where they relate specifically to technology recommendations.



For reference purposes, each of the following initiatives is followed by an abbreviation, listed below. These indicate which task(s) in the project the solution was identified in.

#### Figure 4.2.1.1: ITSP Initiative Traceability

|         |                                                                                                                                                     |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| [MI]    | Management Interview.                                                                                                                               |
| [ITFG#] | IT Focus Group, the number indicates the specific focus group (1) Infrastructure, (2), Hardware, (3) Software/DB, (4) IT Organization & Operations. |
| [RW#]   | Rapid Workflow® Workshop, the number indicates the specific workshop.                                                                               |
| [SS]    | Staff Survey.                                                                                                                                       |

Every initiative in the following pages provides an Initiative Traceability Bar, which indicates the Initiative Number, Initiative Name, the Source, and reference to a respective City Council Goal.

#### Figure 4.2.1.2: ITSP Initiative Traceability Bar

|              |                                                                                        |                                  |
|--------------|----------------------------------------------------------------------------------------|----------------------------------|
| <b>INF 1</b> | <b>City Access Control Systems</b>                                                     | <b>Source:</b> RW1,RW6,RW11,MI12 |
|              | <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, and technology. |                                  |

**Goals:** The Goals approved by the City Council are as follows (in no priority order):

1. Recruit and retain high-quality staff.
2. Strengthen public safety, improve the quality of life.
3. Maintain / enhance City facilities, equipment, technology.
4. Diversify, stabilize, increase housing reflecting community needs.
5. Achieve long-term fiscal sustainability.
6. Advance environmental sustainability/climate resiliency.

## INF Infrastructure

The ITSP project assessed various infrastructure, networking, and communications technologies. IT operational opportunities were also assessed as part of the project. Infrastructure findings and recommendations are provided below.

|              |                                                                                    |                      |
|--------------|------------------------------------------------------------------------------------|----------------------|
| <b>INF 1</b> | <b>City Hall + PD Multi Factor Authentication</b>                                  | <b>Source:</b> ITFG1 |
|              | <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                      |

### Findings:

The Infrastructure IT Focus Group revealed the City has been mandated to implement two factor authentication for PD.

### Recommendations:

- Implement an enterprise-wide two factor authentication system
- City Hall + PD Multi Factor Authentication

### Benefits:

- More secure access.
- Compliance with best practices and requirements.
- Mandated by DOJ for PD.

|              |                                                                                    |                      |
|--------------|------------------------------------------------------------------------------------|----------------------|
| <b>INF 2</b> | <b>City Hall EOC and PD UPS</b>                                                    | <b>Source:</b> ITFG1 |
|              | <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                      |

### Findings:

The Infrastructure IT Focus Group with IT staff and management revealed the City's UPS (uninterrupted power supply) is at end of life. If UPS fails, the City's services will stop working.

### Recommendations:

- Replace existing City Hall UPS with a new unit.
- Public Safety EOC and PD UPS Replacement.

### Benefits:

- Enterprise data center will be able to run during a multi-hour power outage.
- Reliable power during commercial power failures and brownouts, which can affect computer operations.
- Mitigate blackouts.

|                                                                                    |                         |                      |
|------------------------------------------------------------------------------------|-------------------------|----------------------|
| <b>INF 3</b>                                                                       | <b>HP Core Switches</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                         |                      |

**Findings:**

The Infrastructure IT Focus Group with IT staff and management revealed the Enterprise HP Core Switches have not been replaced in 10 years in City Hall and the Police Department.

**Recommendations:**

- Replace core switches with modern switches: 3 primary core switches consisting of an aggregate and 7 switches per aggregate.
- Enterprise Perimeter Switches:
  - INF 3.1 HP Core Switches: City Hall
  - INF 3.2 HP Core Switches: PD

**Benefits:**

- Network resilience.
- Faster, more reliable speeds.

|                                                                                    |                              |                      |
|------------------------------------------------------------------------------------|------------------------------|----------------------|
| <b>INF 4</b>                                                                       | <b>Implement SIEM System</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                              |                      |

**Findings:**

The Infrastructure IT Focus Group with IT staff and management revealed the City has so much network traffic, intrusion detection, etc. There is too much data to analyze. No one person can do it and take meaningful action related to it.

**Recommendations:**

- Implement a Security information and Event Management (SIEM) System.

**Benefits:**

- Centralized visibility across the entire network: firewalls, servers, applications, cloud services, and endpoints. A “single pane of glass” to monitor activity.
- Real-Time threat detection: correlation rules, behavioral analytics, threat intelligence to detect suspicious patterns, identify intrusions/malware, alert teams to abnormal user/system behavior, reduces time to detect attacks.
- Faster incident response.
- Compliance and audit support: built-in reporting for PCI-DSS, HIPAA, CJIS, NIST, SOX, ISO 27001.
- Log management & long-term storage.
- Threat intelligence integration.
- User & Entity Behavior Analytics (UEBA).
- Reduced cybersecurity risk: prevent breaches, minimize attack impact, improve organizational security posture.

|                                                                                    |                                |                      |
|------------------------------------------------------------------------------------|--------------------------------|----------------------|
| <b>INF 5</b>                                                                       | <b>Meraki Wireless Upgrade</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                |                      |

**Findings:**

The Infrastructure IT Focus Group with IT staff and management revealed the Meraki hardware is obsolete and is no longer supported by the manufacturer.

**Recommendations:**

- Stay on the scheduled replacement from the manufacturer.
- Adopt a Meraki Wireless Upgrade schedule:
  - INF 5.1 Meraki Wireless Upgrade
  - INF 5.2 Meraki Wireless Upgrade
- Have approximately 75 access points that need to be replaced.

**Benefits:**

- Have strong reliable public Wi-Fi in City facilities.
- Enhanced service to the public, and to City staff.

|                                                                                    |                                                 |                      |
|------------------------------------------------------------------------------------|-------------------------------------------------|----------------------|
| <b>INF 6</b>                                                                       | <b>Communications Raised Floors Replacement</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                                 |                      |

**Findings:**

The Infrastructure IT Focus Group with IT staff and management revealed the raised floor in Communications is not stable, and the footings are coming loose. This results in the following:

- Unsafe environment for employees and equipment could be damaged.

**Recommendations:**

- Replace the flooring and footers in the Communications area.

**Benefits:**

- Stable, safe floor structure in the dispatch server space.

|                                                                                    |                                   |                      |
|------------------------------------------------------------------------------------|-----------------------------------|----------------------|
| <b>INF 7</b>                                                                       | <b>Replace Existing Firewalls</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                   |                      |

**Findings:**

Firewalls are outdated and behind the technology curve. This results in an increased potential for hacking and bad actor attempt to gain access to the City network.

**Recommendations:**

- Replace existing firewalls with next generation firewalls.

**Benefits:**

- A more secure and modern system of protection from bad actors.

|                                                                                    |                         |                    |
|------------------------------------------------------------------------------------|-------------------------|--------------------|
| <b>INF 8</b>                                                                       | <b>Dispatch Systems</b> | <b>Source:</b> RW7 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                         |                    |

**Findings:**

The Rapid Workflow® workshop with EOC – Communications revealed the following:

1. EOC lacks system redundancy:
  - If Wi-Fi connectivity is lost, they lose their backup.
  - If the Wi-Fi goes down, they lose access to all web-enabled systems.
2. Emergency 911 CAD lacks redundant servers, which can impact several systems, e.g., WestNet, CAD to CAD, RMS for PD and Fire, ability to record data coming from CAD, and mapping systems, which results in:
  - If CAD system goes down, it would delay 911 responses to the community.
  - Lack of situational awareness for first responders in the field.
  - Legal liability impacts, exposure to lawsuits.
  - Staff impacts, increases fatigue and stress, and risk of mistakes.
3. Lack of redundant connectivity results in single points of failure across systems.
4. Lack an emergency medical dispatch system, which results in:
  - Lack of efficiency without an integrated service allowing dispatchers to provide pre-arrival protocols and instructions for emergencies.
  - Inability to meet County EMS standards, opening the City for legal liabilities.
5. Lack single sign-on capabilities, which results in:
  - Dispatchers must remember 20+ passwords.
  - Before they begin working, they must log into all systems.
6. Audio logging equipment is outdated, Stancil (20 years old, upgraded 9 years ago, staff are still burning CDs in 2025), which results in:
  - Lack of compliance and quality assurance of work being done.
  - Poor audio quality.
  - There are gaps in evidence and discovery.
  - Increased liabilities on how PD or Fire responds.
7. The amount of incoming calls/workload and non-emergency calls, which results in attention taken away from emergencies, due to overwhelming non-emergency calls.
8. Lack of automatic voice dispatching, resulting in additional manual work.

**Recommendations:**

- Automate the process to collect employee contact information and push information to Everbridge. Adopt a simple app to collect data across the City.
- Adopt a notification system with:
  - Alert and warning 2-way communication.
  - Create chat groups by type.
  - Capture all decisions.

- Implement backup server at a separate location, e.g.:
  - Dispatch center with independent power source and UPS.
  - Colocation site in the event City Hall needs to be evacuated.
- Currently exploring Dejero, a smart blending router with multiple sources of connectivity (fiber, Wi-Fi, and cellular, all working at the same time), so the dispatch center is resilient.
- Require updated technologies that integrate with CAD, e.g., Intelicomm (by Apco) and ProQA (by Priority Dispatch), or equal.
- Implement single sign-on, to the extent possible.
- Integrate CAD and 911 phone system.
- Adopt AI to handle non-emergency calls, e.g., animal control, alarm calls, public works, etc. to transfer calls as appropriate.
- Automatic Voice Dispatching system (WestNet, or equal).

**Benefits:**

- More efficient communication.
- Consistent dispatching.
- Help reduce multichannel monitoring at the dispatch level.
- Improve community engagement.
- Reduce community complaints.
- Ability to retain incident records.
- One place to make all notifications.
- Enhance available data for analytics.
- Improve documentation impacting responses.
- More efficient internal processes for staff.
- Faster, more accurate emergency response.
- Improve patient outcomes.
- Improve workflows.
- Faster access to emergency systems.
- Protects the City from liability.
- Improve resilience.
- Continuity of operations.
- Ensure compliance/best practices of Emergency Dispatch Center.
- Avoid single points of failure.
- Integration with CAD systems.
- SME support of CAD would remove responsibility from Emergency Dispatch operation staff.
- Force multiplier when experiencing high call volumes.
- More efficient claim process.
- Ensure radio coverage in emergency operations, when disconnected from County radio backbone.
- Improve outdated system.
- Staff time savings.
- IT staff savings not having to reset passwords.

- Improve efficiency during high call volumes.
- Free a public safety dispatcher.

|                                                                                    |                                         |                      |
|------------------------------------------------------------------------------------|-----------------------------------------|----------------------|
| <b>INF 9</b>                                                                       | <b>PD Enterprise Server Replacement</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                         |                      |

**Findings:**

The Hardware IT Focus Group with IT staff and management revealed the City has servers, whose warranty will expire in the next 2 years. Vendor requirements are increasing for servers. This could impact the performance and capacity when moving to new vendor software packages.

**Recommendations:**

- Keep the host up to date by refreshing that technology.
- Purchase replacement servers, approximately 4 servers.

**Benefits:**

- Enhance the ability to better respond to increased demands for public resources requested to IT.

|                                                                                    |                                                |                      |
|------------------------------------------------------------------------------------|------------------------------------------------|----------------------|
| <b>INF 10</b>                                                                      | <b>City Hall Enterprise Server Replacement</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                                |                      |

**Findings:**

The Hardware IT Focus Group with IT staff and management revealed the City has servers, whose warranty will expire in the next 2 years. Vendor/new ERP requirements are increasing for servers. This could impact the performance and capacity when moving to new vendor software packages.

**Recommendations:**

- Keep the host up to date by refreshing that technology.
- Purchase replacement servers, approximately 6 servers.

**Benefits:**

- Positions City to better respond to increased demands for public resources requested to IT, e.g., for Planning Department, City Clerk, departments that require storage and access to documents, manage projects, and all future systems.

|                                                                                    |                           |                         |
|------------------------------------------------------------------------------------|---------------------------|-------------------------|
| <b>INF 11</b>                                                                      | <b>Redundant Internet</b> | <b>Source:</b> IT Dept. |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                           |                         |

**Findings:**

When the internet is down, critical City operations are interrupted, including email, enterprise applications, public-facing online services, and communication systems. Extended outages reduce staff productivity, affect service delivery to the community, and pose operational risks for departments that depend on continuous access to cloud platforms for Public Safety.

**Recommendations:**

- Implement a redundant internet connection design by adding a secondary ISP with physically diverse routing, integrated with the City's network using automatic failover capabilities, we reduce risk.
- Ensure that if one provider experiences an outage, traffic seamlessly transitions to the backup connection without interrupting operations.
- Carry out continuous monitoring and periodic failover testing to ensure long-term reliability.

**Benefits:**

- Significantly improve network resilience and uptime.
- Ensuring City services remain available during ISP disruptions.
- Strengthen business continuity.
- Supports a growing portfolio of cloud-based applications.
- Reduce operational and service delivery risks across all departments.

## HW Hardware

|                                                                                    |                               |                      |
|------------------------------------------------------------------------------------|-------------------------------|----------------------|
| <b>HW 1</b>                                                                        | <b>Nimble SAN Replacement</b> | <b>Source:</b> ITFG2 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                               |                      |

**Findings:**

The Hardware IT Focus Group with IT staff and management revealed the current Nimble SANs are getting old and are a bottleneck to access data due to the current speed of the SAN technology. PD's SAN technology is 6 -7 years old, and City Hall's is 2 years old. This results in the following:

- Storage space is decreased.
- Support will be running out.
- Reliability problems.

**Recommendations:**

- Replace current SAN with new system.
- Update the storage technology with faster hard drive technology.
- Increase speed to access data.
- Implement all flash drives.
- Implement (2) SAN networks:
  - HW 1.1 PD Nimble SAN Replacement
  - HW 1.2 City Hall Nimble SAN Replacement

**Benefits:**

- High reliability access.
- Faster access to data.
- More storage capacity.

|                                                                                |                                      |                      |
|--------------------------------------------------------------------------------|--------------------------------------|----------------------|
| <b>HW 2</b>                                                                    | <b>PC/Laptop Replacement Program</b> | <b>Source:</b> ITFG2 |
| <b>Council Goal:</b> 2. Strengthen public safety, improve the quality of life. |                                      |                      |

**Findings:**

The Hardware IT Focus Group with IT staff and management revealed the PC and laptop replacement cycle identified in the initial ITSP continues and should continue.

**Recommendations:**

- PCs/Laptop Replacement Program.
- Adopt a phase system replacement schedule:
  - HW 2.1 PC/Laptop Replacement Program
  - TBD 23.1 PC/Laptop Replacement Program
  - TBD 23.2 PC/Laptop Replacement Program
  - TBD 23.3 PC/Laptop Replacement Program
  - TBD 23.4 PC/Laptop Replacement Program

|                                                                                    |                            |                      |
|------------------------------------------------------------------------------------|----------------------------|----------------------|
| <b>HW 3</b>                                                                        | <b>Council Chambers AV</b> | <b>Source:</b> ITFG2 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                            |                      |

**Findings:**

The Hardware IT Focus Group with IT staff and management revealed Trident is currently carrying out an assessment for AV requirements for the Council Chambers.

**Recommendations:**

- Provide budget for Audio Video group:
  - HW 3.1 Council Chambers AV
  - HW 3.2 Council Chambers AV
  - TBD 6.1 Council Chambers AV
  - TBD 6.2 Council Chambers AV
  - TBD 6.3 Council Chambers AV

**Benefits:**

- N/A.

|                                                                                |                                            |                      |
|--------------------------------------------------------------------------------|--------------------------------------------|----------------------|
| <b>HW 4</b>                                                                    | <b>Public Safety Mobile Data Computers</b> | <b>Source:</b> ITFG2 |
| <b>Council Goal:</b> 2. Strengthen public safety, improve the quality of life. |                                            |                      |

**Findings:**

The Hardware IT Focus Group with IT staff and management revealed mobile data computers (MDCs) were replaced 3 years ago and will be out of support in 2 years (2026/2027-time range), which will result in:

- System degradation.
- Might have to take down support vehicles.
- Degradation of public safety support vehicles.

**Recommendations:**

- Replace the existing devices on a 5-year schedule (85 units total).
- Public Safety MDC.

**Benefits:**

- More reliability and useful life out of the system. Public Safety staff depend on them to do their jobs.

## D SW Software: Departmental

|                                                                                    |                                      |                    |
|------------------------------------------------------------------------------------|--------------------------------------|--------------------|
| <b>D SW 1</b>                                                                      | <b>Public Works AutoCAD Software</b> | <b>Source:</b> MI1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                      |                    |

**Findings:**

The Management Interview with Public Works revealed a lack of sufficient AutoCAD and Synchro construction management software licenses.

**Recommendations:**

- Acquire additional AutoCAD licenses, and AutoTurn.
- Synchro: need one additional license (have 1 license).

**Benefits:**

- Enhanced productivity for engineering work and construction management projects.

|               |                                                                  |                    |
|---------------|------------------------------------------------------------------|--------------------|
| <b>D SW 2</b> | <b>Business Opening Application</b>                              | <b>Source:</b> RW6 |
|               | <b>Council Goal:</b> 5. Achieve long-term fiscal sustainability. |                    |

**Findings:**

The Rapid Workflow® workshop with Economic Development & Services - Opening a Business revealed the following:

1. Not all businesses apply.
2. There are different points of entry.
3. The process is not intuitive for businesses.
4. Applicants complain to the City regarding the TESSA login.
5. The inconsistent experience relating to the different points of entry.
6. Businesses come in and ask questions, information is not captured, so there is no follow-up.
7. Applicants complain about the time it takes to get through regulations (the entitlement process takes 5-6 months).
8. Lack of clear path. People can see step 1 but cannot see the whole path.
9. If they contact different Planners, they can get different responses.
10. Inability to track leads.
11. The descriptions of Business Licenses can be very vague.
12. High number of first-time business owners results in long review times.
13. Processing times can be unclear when you have public input and modifications coming from public input and public hearings.
14. Fees can be unclear.
15. Still have paper documents, everything pre-2023 is still in Laserfiche or paper.
16. Coordination with third-party consultants.
17. Order in which things need to be done can be unclear to some applicants.

The foregoing results in:

- Illegal businesses.
- Lost leads.
- Applicant experience:
  - Applicants do not start business in the City of Costa Mesa.
  - Applicants may not apply.
  - Increased processing time.
  - Customer frustration.
  - Bad customer experience.
  - Applicants explore other options in neighboring cities.
  - Applicant time.
  - Applicants lose interest.
  - Applicants contact multiple City staff and departments for clarification and additional information.
  - Applicants sometimes do not get a hold of the Plan Checker.
- Staff and applicant confusion and frustration.
- Wasted staff time.
- Lost revenue.

- Have to contact the applicant and ask them to elaborate.
- Can delay process from 2 weeks to much more.
- May cause challenges with Investors.
- Increased propensity for errors.
- Long review times.

**Recommendations:**

- Explore whether the CRM recommendations made for other departments would meet this requirement.
- Explore the use of software to scrape business owner data to engage and direct applicants towards the proper process.
- Better coordination with Fire Department to direct noncompliant businesses.
- Enter noncompliance businesses in TESSA via tablets.
- Explore feature in TESSA that validates whether a business license has been obtained prior to issuing other permits.
- Internal policy that defers applicant to Planning department first.
- More outreach.
- Provide a new business welcome packet.
- Provide clear infographics that boil down complex steps.
- Automatic emails to applicants with all steps necessary to start a business.
- Explore whether the TESSA Customer login can be made more user friendly.
- Articulate a standard path for this process.
- Route all ports of entry to a standardized path.
- Business process review study.
- Conducting rezone efforts to make the process more objective or clear.
- The City is currently creating boilerplate templates for Entitlements with fill-in the-blank and findings. Do the same with points of contact with the applicant, letter, communication, staff reports, standardized conditions of approval, and standardized corrections.
- Continue coordination with businesses and pro-business agencies.
- Provide samples to applicants.
- Create templates and fields in TESSA.
- Explore the following functionality in TESSA:
  - Deploy text-fillable PDF that guides users to the exact answers City needs.
  - Deploy TESSA smart form to guide users to the exact answers City needs.
- Investigate the following:
  - Inventory Historical Documents to determine which ones can be scanned and use a taxonomy.
  - For Laserfiche documents, reconcile the two taxonomies. Add new attribute to Laserfiche docs for new taxonomy.
- Training.
- Standardizing.
- Review the existing review processes whether some business processes should not be subject to public review.
- Explore implementing a fee calculator.

**Benefits:**

- More legal businesses.
- Increase safety.
- Small increase in City revenue.
- More predictable path for applicants.
- Increased staff productivity.
- Improve customer experience.
- Applicants would better understand what they need to do.
- Applicants would be better engaged in the process.
- Capitalize on opportunities.
- Faster business license issuance.
- Better documentation for business description to enforce later.
- Streamlined business process.
- Less staff time finding where paper is stored and flipping through paper.
- Attract more businesses.
- Increase development.

|               |                                                                                   |                      |
|---------------|-----------------------------------------------------------------------------------|----------------------|
| <b>D SW 3</b> | <b>Mobile Device Management Software (MaaS360)</b>                                | <b>Source:</b> ITFG2 |
|               | <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology |                      |

**Findings:**

The Hardware IT Focus Group with IT staff and management revealed the following related to mobile devices:

- The current MDM solution (MaaS360) is unreliable and difficult to use.
- It takes longer to configure on a phone, and it is not a robust solution.
- It is a PD requirement for patrol officers to be able to manage their issued cellphones.

This results in the following:

- Inefficiencies.
- It takes staff time to configure and deploy phones.

**Recommendations:**

- Implement Mobile Device Management Software solution:
  - Simple, easy to use.
  - It takes less than an hour to configure a phone.

**Benefits:**

- Faster deployment time.
- Less staff time.
- Policy implementation for efficiencies.

## E SW Software: Enterprise

Enterprise Software denotes applications used by all departments, by all departments, or many departments across the City of Costa Mesa. An enterprise technology vision, which the ITSP & Roadmap proposes, typically adheres to the following:

- Most software comes with built-in AI capabilities, which City staff can explore as a possibility to improve the efficiency of their current processes. For instance, when the City receives numerous proposals in response to a bid, AI can review the proposals and produce a summary of all the proposals. Thereafter, the City can compare, evaluate, and make a final selection.
- Enterprise software benefits several business units across the organization, taking advantage of economies of scale.
- Enterprise software pools financial resources from one or more business units or departments to procure systems that otherwise might not be affordable by one business unit.
- Voids the purchase of technically disparate systems that provide the same functionality.
- Procures systems that meet Enterprise Architecture and established technology standards to minimize operational costs and maximize investments in technology.
- Decreases the overall workload on IT staff by not having to provide technical support on numerous redundant applications or applications that do not meet the City of Costa Mesa's standard Enterprise Architecture or standards.
- Typical enterprise applications include ERP Systems (e.g., financial, human resource, work order, procurement, asset management applications, etc.), Enterprise Content Management Systems, and Geographic Information systems.

|               |                                                                                |                                 |
|---------------|--------------------------------------------------------------------------------|---------------------------------|
| <b>E SW 1</b> | <b>Citizen Request Management</b>                                              | <b>Source:</b> RW1,RW6,RW11,M12 |
|               | <b>Council Goal:</b> 2. Strengthen public safety, improve the quality of life. |                                 |

### Findings:

An Enterprise Rapid Workflow® workshops representing several departments including the City Manager's Office - Constituent Relations Management, Economic Development & Services addressed Opening a Business, CRM, and Public Engagement Software revealed the following:

1. Businesses come in and ask questions, but their information does not get captured, so there is no follow-up, which results in:
  - Leads are lost.
  - Do not start business in the City.
  - Applicants lose interest.

2. Public Works: There are multiple ways to get input: calls, emails, and the 311 application. Currently track complaints in Excel. This is not very well coordinated, resulting in:
  - Duplication of effort, multiple people reaching out.
  - Not easy to track information over long periods of time.
  - Unclear who is the lead or champion who will handle the action item.
  - Not able to collect or analyze quantitative or qualitative data.
3. City Manager: When it comes to Public Engagement, existing methods for gathering information are siloed. Systems don't work together in coordination. It feels like they are manually turning to each system, which results in:
  - Limited in reach.
  - Affects public participation.
  - Wasted staff time by using different platforms.
  - Transparency is questioned by the public.
  - Limits City ability to improve over time by having limited means of public input. Have blind spots they do not know about.
  - Cannot establish metrics or do performance measurements.
  - Cannot track engagement.
5. Police Department: Lack of a common central hub that communicates with all departments, which results in impacts to transparency.
6. Finance: Might get various calls regarding business license or whether a payment has been made. Lack central hub where the public can ask Finance questions. This results in:
  - Duplication of effort of staff. Customers may call multiple staff.
  - May impact customer service.
  - May jeopardize vendor relations.
7. Fire & Building: Lack a centralized repository and log for what answers have already been given out/communicated to customers. This results in:
  - Must go back and retrace their steps.
  - Staff time.
  - Redundancies.
  - Without that information on answers given out, may give different answers.
  - Customers may think the City is hiding something.
  - May result in customer complaints to Council.
  - Erodes public confidence.
  - No way to track public progress.

**Recommendations:**

Citizen Request Management Software

**Features & Functions**

- Public Portal.
- Consolidate all interactions with residents:

- Phone
- Emails
- Website forms
- Requests:
  - Service Requests
  - Customer Complaints:
    - Abandoned vehicles
    - Animal control
    - Construction complaints
    - Code violations
    - Park requests
    - Hazards
    - Building inquiries
    - Homeless issues
    - Graffiti
    - Trash
    - Parking
    - Fireworks
    - Landscaping issues
    - Maintenance
    - Pothole and roadwork
    - Sidewalk issues
    - Storm drain issues
    - Streetlights
    - Street sweeping
    - Traffic control and signal issues
    - Tree trimming
    - Water and storm drain issues
    - Etc.
  - Vendor Requests
- Workflow:
  - Automatic notifications
  - Automatic routing:
    - Based on request type, system will route to the right department
    - Ability to assign to multiple departments
- Ability to connect various technologies and platforms used for community outreach, i.e., virtual town hall.
- Provide response times:
  - Progress:
    - Status in the workflow
    - Update to the requestor
    - Use standard templates to respond to requestor
  - Reminders: system lets staff know an item is outstanding
  - Track resident interaction history
  - Service level tracking:

- How long it took to respond
  - Escalation
  - Time to close
  - Customer service satisfaction surveys
- Connect forms of outreach: Digital.
- Enables them to include actual work they do and work outside of community, e.g., Senior Community provides input through hardcopy or phone survey vs online. Ability to look at data in one single place.
- Single source of information.
- Graphics.
- Training and back of the house support for graphics.
- Heat mapping/word cloud of public input and issue identification from City events and social/digital media platforms.
- Interactive maps where constituents can click and see what it going on in the area.
- Dashboard:
  - Internal
    - Types of service requests by department
    - Quantities of service
    - Submit, view, and track requests
  - External:
    - Services provided
- Graphics capability or support to drop information and maps into websites in a user-friendly manner.
- Process and track public records requests.
- Accessible by any department and staff with access rights.
- Ability to make certain things confidential.
- Knowledgebase for staff with requests, questions that have been made, and answers that have already been given to customers.
- Provide an AI feature that can query the database.
- Ability to support walk-ins.
- Integrated voicemail.
- Dial back from computer.
- Email that automatically saves.
- Store contact information.
- Automated texting.
- Post City common use cases.
- Integrate with other constituent and staff programs:
  - Able to leverage any communication with the City, separated by:
    - Issue
    - Location
- Events.
- Ability to track/analyze third-party systems (Facebook, Nextdoor, etc.) for keywords related to city services/issues in chats and posts for quicker response.

- System requirements:
  - Data security
  - Web enabled
  - Supports mobile device
  - Responsive design
  - 2FA
- Templates/user friendly (drag-and-drop) capability for creating project-based update pages, surveys, and public facing reports on the City website to push info and elicit public input.
- Interface capability with city's existing social media platforms.
- Ability to efficiently incorporate hardcopy constituent input (written surveys, dotmocracy boards (i.e. stickers on boards)).
- Ability to add pop up constituent satisfaction polls on the website attached to specific services/programs.
- Ability for users to choose their preferred language on project and survey pages.

**Reports:**

- Complaints processed per quarter/month.
- Volume of complaints closed.
- Time it took to close complaints.
- Number of Service Requests Received.
- Type of Service Requests Received.
- Response by Department.
- Geographic internal dashboard input:
  - Top requests by district
  - Average response time/resolution time by district
  - Service requests mapped by district

**Interfaces:**

- ERP Oracle Fusion.
- GIS.
- Work Orders.
- Code Enforcement Tracking.
- Other systems to be identified.

**Benefits:**

- Centralized engagement activities.
- Enhanced user experience.
- More effective public engagement.
- Greater reach to constituents.
- Better reaching underrepresented communities.
- Broader feedback from underrepresented communities.
- More efficient internally.
- More connected work product.

- Increased public confidence and trust, informed public.
- When City asks for public support (bonds), have already built public trust.
- Offering the public tools to keep them updated in real time.
- Enhanced customer experience by providing more access to City services.
- Consistency and quality of service.
- Eliminate easy to answer questions first.
- Capitalize on opportunities.

|               |                                                                                |                     |
|---------------|--------------------------------------------------------------------------------|---------------------|
| <b>E SW 2</b> | <b>City Council Initiative Tracking</b>                                        | <b>Source:</b> RW10 |
|               | <b>Council Goal:</b> 2. Strengthen public safety, improve the quality of life. |                     |

**Findings:**

The Rapid Workflow® workshop with Council Strategic Planning Goals revealed the following:

**General Notes:**

- Police and Fire are using CAD for responses and data.  
Reports include:
  - Response times
  - Number of responses
  - Types of responses
  - Building uses TESSA

**Tracking Council Initiatives (Programs, projects, etc.)**

1. For Finance, it is difficult to identify how some of these performance measures are tied to a specific goal, which results in having to adhere to GFOA and CSMFO standards and have received multiple complaints about these programs performance measures not being directly tied to a City Council goal.
2. Two concurrent processes: Finance and City Manager. There is overlapping information. The challenge becomes when Finance asks for information for the purpose of the budget and City Manager asks for information for the purpose of informing Council, which results in:
  - Staff time.
  - Confusion regarding the datasets.
  - Inefficient.
3. City Manager's Office, gathering qualitative data from multiple sources and consolidating it into one document, which results in staff time for City Manager's Office when it's vastly different.
4. Give departments a City Council goal table and ask them if initiative, goals, and objectives have been completed, in progress, or modified.
5. Development Services: what they provide to Finance is qualitative and needs to speak to the council strategic goal. Manual process to make quantitative data to qualitative data. Have to customize their response to match the format that is being asked which results in staff time.

6. On the quantitative side, when they get the table, their reporting system does not have a report to respond to City Council's request for metrics, which results in inefficiency trying to convert that data into something that is responsive.

### **Performance Measurements (Metrics)**

7. A lot of times, start working on metrics at the time of budget. Do not continually track budgets as they go on, which results in:
  - Staff time.
  - Having a tight deadline for budget turnaround.
8. Have to physically gather data (calls received, contacts with people, pop up events, etc.) when they lack software. There are multiple sources of data: TESSA, 311, and manual metrics in department Excel spreadsheets, which results in:
  - Staff time.
  - Risk of incorrect data.
9. Departments may not review performance measurements in Finance Budget Book to ensure they are concurrent, which results in:
  - GFOA and CSMFO standards are not met.
  - Having old data for public consumption.
10. The performance measurements in the Budget Book uses old terminology, which results in:
  - Old terminology may be problematic.
  - May provide information that is not required.
  - Data may be misinterpreted.
11. Departments may or may not be tracking their performance measurements and metrics in a system, which results in:
  - A lot more work.
  - Staff time.
  - Having a tight deadline for budget turnaround.

### **Recommendations:**

- Explore whether the CRM recommendations made for other departments would meet this requirement.

### **Council Initiatives Tracking**

#### **Features & Functions**

- Track Council Initiatives to Council goals.
- Track Council Initiatives to more than one goal.
- Track metrics to Council initiatives.
- Ability to track metrics for each department.
- Track and normalize data collected by City Manager's Office and Finance.
- Track data required by City Manager's Office:
  - Objectives in Strategic Plan
  - Quantitative data, e.g.:

- Workload and context
  - Customer service
  - How fast city responds to constituents
- Track the data provided by departments to Finance:
  - Performance measures
  - Workload indicators
  - Goals and objectives tied to City Council strategic goal
- Provide the ability for departments to update the data provided to Finance on an ongoing basis.
- Track historical data from Finance Budget book pages.
- Adopt a standard web enabled form to collect data to be tracked, using a database on the backend.
- Support responsive design.
- Provide dual factor authentication.
- Allow users to have different role access (publishing, editing, viewing, etc.).
- Consolidate data from multiple sources, e.g.:
  - Finance system
  - TESSA
  - Excel spreadsheet
- Support attachments.
- Provide narrative text boxes.
- Ability to add and modify data in real time.
- Adopt the use of current terminology.
- Provide a dashboard (presenting real time data, including data fetched from other systems), both public and internal access only.

**Reports:**

- Calendar Year End Accomplishments
- Fiscal Year Budget Metrics
- Calendar Year Budget Metrics
- Department-specific Interfaces
- TESSA
- 311 App
- PeopleSoft (to be replaced with Oracle)
- Microsoft 365 Forms
- CAD
- ActiveNet (employ the use of APIs)
- Department-specific Policy
- Adopt AR policy that says department should update with annual budget process, including terminology.

**Benefits:**

**Tracking Council Initiatives** (Programs, projects, etc.)

- Improved transparency.
- Centralized data gathering and maintenance of data.
- Improved efficiencies.
- Avoid redundancy.
- Streamline the process.
- Visually easier to report out.
- Quicker.
- More responsive to City Council.
- Performance Measurements (Metrics).
- Accessibility of information makes them more responsive to Council and the public.
- Staff time savings.
- More consistent data.
- Would not have to revisit the terminology all the time.
- Able to access information easily.

|               |                                                                  |                        |
|---------------|------------------------------------------------------------------|------------------------|
| <b>E SW 3</b> | <b>CIP Project Management Software</b>                           | <b>Source:</b> RW5,M11 |
|               | <b>Council Goal:</b> 5. Achieve long-term fiscal sustainability. |                        |

**Findings:**

The Rapid Workflow® workshop with Public Works - CIP and the Management Interview with the Public Works revealed Public Works lacks in-house Project Management software to manage projects, schedules, resources, budgets, etc. This results in:

- Sometimes they rely on the contractor's Project Manager and their schedule.
- They rely on City Excel spreadsheets to manage projects and budgets.
- They document project status individually in Word and Excel, then compile the data.
- Each Project Manager does their own thing.

**Recommendations:**

- Explore leveraging Planview for CIP Project Management implemented as an enterprise system used across multiple departments.
- Leverage existing expertise.
- Articulate standard business processes and practices.
- Provide role-based training to all staff responsible for managing CIP initiatives.

**Benefits:**

- Centralized Project Tracking: Consolidates all CIP projects, budgets, schedules, documents, and updates in one system. Provides a single source of truth for staff, leadership, and stakeholders.

- Increased Efficiency and Reduced Manual Work: Replaces spreadsheets, manual tracking, and disconnected tools. Saves time across engineering, finance, and management teams.
- Better scheduling & timeline management.
- Enhanced transparency & reporting.
- Streamlined collaboration & communication.
- Risk and issue management.
- Improved resource allocation.

|               |                                                                                    |                                        |
|---------------|------------------------------------------------------------------------------------|----------------------------------------|
| <b>E SW 4</b> | <b>Laserfiche Expansion &amp; Adoption Plan</b>                                    | <b>Source:</b> RW6,RW9, MI 5, 8, 9, 10 |
|               | <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                        |

Enterprise Content Management issues (electronic document management) were the most mentioned system requirements in the project. This was also the case in the IT Strategic Plan from 2019, and many of the same challenges remain. ECMS/Laserfiche was addressed in Rapid Workflow® workshops and Management Interviews. Data applicable to each department is provided below. Enterprise recommendations are provided at the end of this initiative.

#### City Clerk Management Interview Findings:

The Management Interview with the City Clerk Office's revealed they do not have the budget to utilize the existing technology, e.g., Laserfiche. When implemented 11 years ago, it was supposed to be expanded throughout City Hall, but it is still in the Clerk's Office. Do not have enough people. They need more IT staff to manage Laserfiche and City Clerk staff to become users of it.

#### Finance Management Interview Findings:

The Management Interview with Finance revealed Laserfiche has not been fully implemented. The challenge has been the allocation of resources to fully build out the use of Laserfiche. Would like to have Finance staff use Laserfiche with its own interface for documents stored in Laserfiche, e.g., invoices.

#### Economic & Development Services Management Interview Findings:

The Management Interview with the Economic & Development Services department revealed there are challenges locating items when staff need them. All files are digital; they do not have paper anymore. Managing all digital content is a challenge. Have a need to find information instantly, but it is difficult if you do not know where it was stored. Every person has their own method. The Director has been with the City for 7 months, and working on standardizing their files, to work in an efficient manner.

#### City Attorney Management Interview Findings:

The Management Interview with the City Attorney's Office revealed emails lack the ability to search across multiple parameters: person, subject, date range, 2 or 3 key words. Would like to be able to search through emails with 4 different parameters to get more focused search results.

**Economic Development Rapid Workflow® Findings:**

The Rapid Workflow® workshop with Economic Development & Services - Opening a Business revealed the department still has paper documents. Everything pre-2023 is still in Laserfiche or paper. This results in staff time and increased propensity for errors.

**City Clerk Rapid Workflow® Findings:**

The Rapid Workflow® workshop with City Clerk – Laserfiche Document/Records Management, revealed the following:

1. Public Records requests have increased over the years. City Clerk lacks staff dedicated to public records request and records management in Laserfiche, which results in:
  - Not as many documents are going into the system.
  - Cannot be proactive, are always reactive.
  - Cannot assist other departments, do not have the time with workload.
  - Current employees would like to do training, which cannot be provided.
  - City Clerk spends more time looking for documents.
2. IT, Building & Planning, and Public Works lack staff dedicated to records management, which results in:
  - IT Department:
    - IT lacks an Application Specialist to fully leverage the Laserfiche system across the City.
  - City Departments:
    - Department staff are not required to make document management a priority.
3. Lack of buy-in/time from departments. Content management is not a priority, which results in documents not being saved and lack of staff training.
4. Lack of funding for full Laserfiche implementation, which results in:
  - Lack of funding to roll out Laserfiche citywide.
  - Lack of funding for City Clerk staff dedicated to Laserfiche.
5. Lack of training for City Clerk and department staff, which results in:
  - Underutilization of Laserfiche.
  - More time is spent searching for documents.
  - Building & Planning cannot respond to simple requests from the public.
  - Building & Planning staff are not trained to do simple searches.
  - Creates more work for the City Clerk's Office.
6. Lack of commitment at a citywide level, which results in:
  - Documents do not get into the system.
  - Employees are not trained to use the system.
  - The Laserfiche system is not utilized.
  - More time is spent searching for documents.
  - Building & Planning cannot respond to simple requests from the public.
  - Building & Planning staff are not trained to do simple searches.
  - Creates more work for the City Clerk's Office.

7. Lack of a citywide Laserfiche implementation plan, which results in:
  - City is not leveraging Laserfiche across all departments.
  - Things do not get done.
8. Do not know if there is still commitment to Laserfiche, which results in:
  - Laserfiche is underutilized and are not getting return on investment.
  - Contract with ECS (Laserfiche VAR) is underutilized/not getting return on investment.
9. Lack of communication. Are not having interdepartmental discussions with the Finance team on why they are making budget requests, which results in:
  - Laserfiche is underutilized and are not getting return on investment.
  - Contract with ECS (Laserfiche VAR) is underutilized.
  - Laserfiche cannot be rolled out across the City.
10. City lacks enterprise taxonomy (naming convention: document types, classes, and metadata), which results in:
  - Laserfiche is underutilized and are not getting return on investment.
  - Contract with ECS (Laserfiche VAR) is underutilized.
  - Laserfiche cannot be rolled out across the City.
11. Laserfiche file convention has very basic alignment with records retention schedule, which results in:
  - Laserfiche is underutilized and are not getting return on investment.
  - Contract with ECS (Laserfiche VAR) is underutilized.
  - Laserfiche cannot be rolled out across the City.
12. Complaints from Developers and the public on the difficulty of getting documents from the City, which results in bad customer service.
13. Staff turnover in leadership positions, which results in:
  - Priorities change.
  - Lack of priorities.
  - Lack of knowledge.
  - Document management implementation remains at status quo.
14. Lack of documents in the cloud and not available in case of an emergency, i.e., earthquakes and fires, which results in:
  - Not able to respond to natural or manmade disasters.
  - Limits the inability to restore operations.

**Recommendations:**

- Technology:
  - Develop citywide Laserfiche implementation expansion plan and rollout out:
    - Documents and records inventory in servers, Laserfiche & hardcopy.
    - Develop an enterprise content management taxonomy (doc types, doc classes and metadata) aligned with the Records Retention Schedule.
    - Develop a backfile conversion plan.
    - Develop a budget estimate for the Laserfiche expansion, including, as appropriately: software licenses, backfile conversions, professional services for content loading, workflow development, implementation of the Records Management Module, end user training, etc.

- Policies:
  - City Manager and leadership assign Laserfiche/document management as a priority for the City.
  - Department will assign a dedicated person to be the main Laserfiche point of contact and liaison for their department.
  - Provide Laserfiche training to all City staff, during onboarding process.

**Benefits:**

- Clear direction document/records management is not an option.
- Laserfiche will be used as a citywide system.
- Provide knowledge the City must have and does not.
- Compliance with government records management/dispositioning mandates.
- Less overtime related to public records requests.
- Enhance customer experience and service.
- Community development benefits:
  - Faster processing and approval of permits, entitlements, etc.
  - Expediate economic development of the City.
  - Faster development of housing, i.e., ADUs, low-income housing.
- Ability to respond to natural or manmade emergencies.
- More documents are available online for business and community.
- Better system utilization.
- Better document management at the department level.
- More documents are available online for Community Partners (e.g., utilities, cell towers), developers, and public.
- Consistency of record naming and storage.
- Expediate location of documents, documents easy and fast to find.
- Use automated records management/dispositioning per retention schedule.
- Streamline operations.
- Increase efficiency.
- Higher return on investment.
- Eliminate rework.
- Less stress for current employees.
- Quicker response times.
- Better utilization of Laserfiche

|               |                                                                                    |                     |
|---------------|------------------------------------------------------------------------------------|---------------------|
| <b>E SW 5</b> | <b>Docusign</b>                                                                    | <b>Source:</b> MI10 |
|               | <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                     |

**Findings:**

The Management Interview with Finance revealed they lack e-signatures through Docusign.

**Recommendations:**

- Implement DocuSign e-signatures or equal.
- Explore the e-signature in Oracle.

**Benefits:**

- Faster approvals and turnaround times, documents can be reviewed and signed instantly from any device.
- Improved efficiency and reduced manual work: eliminates printing, scanning, uploading, and tracking paper documents. Workflows accelerate routing.
- Strong security and audit trails, digital encryption protects document integrity.
- Better compliance with standards, e.g., ESIGN, UETA, and eIDAS.
- Cost savings, cuts printing, mailing, scanning, and physical storage expenses.
- Staff time savings, reduces administrative staff workload.
- Improved customer/staff experience, sign from any device (mobile, tablet, desktop), anytime.
- Easier to track status, send reminders, and store signed documents.
- Reduced risk of lost or damaged documents.

|                                                                                    |                 |                          |
|------------------------------------------------------------------------------------|-----------------|--------------------------|
| <b>E SW 6</b>                                                                      | <b>AI Tools</b> | <b>Source:</b> [RW7,RW8] |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                 |                          |

**Findings:**

The Rapid Workflow® workshops with EOC - Communications and Police CAD/RTIC revealed a challenge with incoming calls and workload, especially non-emergency calls. This results in attention being taken away from emergencies due to the overwhelming number of non-emergency calls.

**Recommendations:**

- Adopt AI to handle non-emergency calls, e.g., animal control, alarm calls, public works, etc. to transfer calls as appropriate:
  - E SW 6.1 AI Tools
  - TBD 8.1 AI Tools
  - TBD 8.2 AI Tools

**Benefits:**

- Workflow improvements.
- Force multiplier when experiencing high call volumes for staff on the floor.
- Allow translation, rather than taking staff off the floor to get a third-party translation.

## INT Interfaces

None. Interface initiative recommendations were moved to TBD and are provided in Section 4.2.4 To Be Determined Initiatives.

### 4.2.2 Operational Recommendations

The area of operational sustainability relates to the IT organization's ability to provide the complete spectrum of services required to effectively and successfully meet the technology needs of the City of Costa Mesa and the public.

Issues related to sustainability include the use of professional best practices commonly found in IT organizations committed to providing exceptional customer service.



Best practices encompass methods, procedures or techniques that have been shown by research, experience and application to produce optimal results; they establish a standard suitable for widespread adoption. Best practices become generally accepted as superior to non-standard alternatives because they produce consistent and predictable results.

In the area of Information Technology, best practices ensure that every phase of the technology lifecycle is executed successfully. This applies to systems planning, requirements, definition, evaluations, selection, implementation, integration, development, and project management. For IT organizations, it also applies to proper resourcing, operations, and service delivery. IT best practices significantly mitigate risk, ensure technology is responsive to organizational needs, fosters the effective use of emerging technologies, and provides the highest return on investment.

A number of IT operation best practices were addressed in the IT Operations Focus Group with IT staff, revealing the following challenges. The following findings and recommendations are based on input gathered throughout the ITSP project related to sustainability.

## O IT Operational Improvements

None. Operation initiative recommendations were moved to TBD and are provided in Section 4.2.4 To Be Determined Initiatives.

### 4.2.3 Management Recommendations

This section of the report includes management recommendations designed to support the implementation of City of Costa Mesa's ITSP & Roadmap over the next 5 years. Management recommendations are based on information gained from a thorough review and assessment of the City's mission, business processes, and requirements. An understanding of the City's IT management issues was realized by holding interviews with all department heads, IT Focus Groups, an Online Staff Survey and Rapid Workflow® process workshops.



## M Management Policies

The ITSP effort assessed the capabilities and challenges of the Information Technology organization, funding and policies. Several organizational issues were identified with regard to sustaining the City's existing and future Information Technologies, i.e., the knowledge, skills, and abilities of IT staff, the number of IT staff, and the IT organizations support capabilities. Opportunities for improvement and the ability to sustain the IT Strategic Plan are articulated below.

|            |                                                                                    |                                                         |
|------------|------------------------------------------------------------------------------------|---------------------------------------------------------|
| <b>M 1</b> | <b>IT Resourcing</b>                                                               | <b>Source:</b> RW2, RW7, RW8, RW9, ITFG3, MI3, MI4, MI7 |
|            | <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                                         |

#### Findings:

The issue of IT staff resources in the IT organization was identified throughout the project. IT resource requirements to support City departments are below.

### M 1.1 Public Safety App Analyst [RW2, RW7, RW8, ITFG3, MI3, MI4, MI7]

**Management Interviews:** revealed the following IT staff requirements:

- Police:
  - Application Specialist
  - CAD Specialist
  - PD Programmer
- Fire Department:
  - Application Specialist

**IT Focus Groups:** revealed the following IT staff requirements:

- Applications & Databases Focus Group: SQL Server DBA.
- Applications & Databases Focus Group: AssetWorks Application Analyst.

**Rapid Workflow® Workshops:** revealed the following IT staff requirements:

- Fire Department [RW2], Application Specialist:
  - Core Systems, e.g., CAD/CST/CAD to CAD/NextGen Hub, TESSA, Tyler.
    - Sub: RMS /First Due, EPCR, Tablet Command, IG Enforce, IG Inspect, West Net.
  - Ancillary: UKG Drone Program, BlueBeam3.
- EOC [RW7], PD IT CAS Administration Support:
  - CAD administration and integrations, including servers.
  - CAD support, training, and IT/vendors for updates.
  - Option: Obtain a third-party CAD/RMS support staff resource.
- Police, IT CAD Public Safety Specialist: Public Safety systems.

**Online Staff Survey:** When asked to rate the services provided by IT, Ongoing Technical Support and Help Desk and rated the highest with 29.31% and 25.86% as Excellent, respectively. Typical comments from staff related to low IT staffing levels and support included the following:

- “Would be great to have more IT staff.”

#### **M 1.1 TESSA App Analyst [MI2, MI7, ITFG3, Staff Survey]**

##### **Findings:**

There were some functionalities in the TESSA implementation that were not configured. This resource will be responsible for completing the customer portal and reporting modules, In addition to providing ongoing application, technical, and end user support.

#### **TBD 10 Laserfiche - AssetWorks App Analyst [RW 9, MI8]**

##### **Findings:**

Management interviews with the City Clerk revealed:

1. Public Records requests have increased over the years. The City Clerk lacks staff dedicated to public records request and records management in Laserfiche, which results in:
  - Not as many documents are going into the system.
  - Cannot be proactive, are always reactive.
  - Cannot assist other departments, do not have the time with workload.
  - Current employees would like to do training, which cannot be provided.
  - City Clerk spends more time looking for documents.
2. Lack the required resources to perform document management responsibilities:
  - Expertise to support citywide Laserfiche deployment
  - System Administration
  - Process Automation, develop workflows
  - E-Forms Development
  - Intelligent data capture and AI
  - Document Management
  - End User Training

- Technical trouble shooting and support
- 3. IT, Building & Planning, and Public Works lack staff dedicated to records management, which results in:
  - IT Department:
    - Get minimum support and IT cannot be proactive because they do not have Laserfiche expertise.
    - City Clerk does not get support needed from IT. IT does not have technical expertise they can go to. Clerk wants to be a Laserfiche user, not technical experts.
  - City Departments:
    - Department staff are not required to make document management a priority.

**TBD 11 Database Administrator** [MI2, MI7, ITFG3, Staff Survey]**Findings:**

Management Interviews revealed the following IT staff requirements:

- (1) Application Specialist Database Administrator: The IT department does not currently have a Database Administrator. This requirement will become acute with the new ERP system, CityWorks expansion, and support of other database driven applications.

**TBD 12 ERP Application Analyst** [MI2, MI7, ITFG3, Staff Survey]**Findings:**

The ERP is the most significant system currently being implemented in the City, and once rolled out, will require significant ongoing application, technical, and end user support.

**Recommendations:****Resource the IT department to sustain the IT Strategic Plan**

The ITSP project recommends the following positions be allocated over the next 5 years as corresponding systems are deployed:

- M 1.1 Staff: Public Safety App Analyst
- M 1.2 Staff: TESSA App Analyst
- TBD 10 Staff: Laserfiche - AssetWorks App Analyst
- TBD 11 Staff: Database Administrator
- TBD 12 Staff: ERP Application Analyst

**Benefits:**

- Better customer service.
- Better system utilization.
- Increased efficiency.
- Quicker response times.
- Streamlined operations.

- Reduced stress for current employees.
- Better document management across the City.
- Timely records destruction per the City's record retention schedule.
- Reduced overtime related to public records requests.
- Increased online document/data availability for Community Partners, Developers, and the public.

#### 4.2.4 To Be Determined Initiatives

At the end of the project a list of ITSP initiatives was produced, reviewed, and prioritized.

The Implementation Roadmap produced a line-item budget of all initiatives and juxtaposed that with the IT Department's available budget. Some projects were placed on a 'parking lot' and labeled as TBD (To Be Determined) list. The following provides a list of key initiatives identified in requirements definition. They are grouped under the TBD heading as funding becomes available.



| TBD To Be Determined |                                                                         |               |
|----------------------|-------------------------------------------------------------------------|---------------|
| TBD 1                | CAD Redundancy (DR)                                                     | Source: ITFG1 |
|                      | Council Goal: 2. Strengthen public safety, improve the quality of life. |               |

##### Findings:

The Hardware IT Focus Group with IT staff and management revealed there is currently a single point of failure for CAD.

##### Recommendations:

- Implement a redundant CAD environment, with virtual environments.
- Dispatch CAD Redundancy.

##### Benefits:

- Enhance reliability of the public safety network.

|                                                                                    |                               |                      |
|------------------------------------------------------------------------------------|-------------------------------|----------------------|
| <b>TBD 2</b>                                                                       | <b>City Hall IT Generator</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                               |                      |

**Findings:**

The Infrastructure IT Focus Group with IT staff and management revealed the power delivery in the City Hall server room is unreliable. Servers cannot stay on to provide service through a long-term power outage lasting more than one hour. This results in the following:

- Being dependent on a single third-party power provider.
- Maintenance windows cause things to go down.

**Recommendations:**

- Get a reliable city generator or dedicated City Hall IT Generator with the capability to plug in external generators to the building.
- Install separate VMware redundant server farms in the dispatch service center.
- Dispatch CAD Redundancy.
- Have main switch in Communications.
- Replace all tape libraries.
- Eliminate tape storage and move to cloud storage.
- Battery with extended life and connection with a secondary generator.
- Some emergency light required for operational purposes during an emergency.

**Benefits:**

- City data center would have the ability to run during a multi-hour power outage.

|                                                                                    |                                               |                    |
|------------------------------------------------------------------------------------|-----------------------------------------------|--------------------|
| <b>TBD 3</b>                                                                       | <b>Computer Maintenance Management System</b> | <b>Source:</b> RW3 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                               |                    |

**Findings:**

The Rapid Workflow® workshop with CMMS - Costa Maintenance Work Orders revealed the following:

**Facilities, Parks, Streets**

1. Have two separate systems that do not communicate, i.e., 311 and Costa Maintenance.
2. 311 nonspecific requests.
3. 311 requests are submitted to the wrong department. Lack of appropriate category.
4. Not an automated system.  
The foregoing results in:
  - Inefficiencies.
  - Staff time.
  - Customer service.
  - Inefficient back and forth with residents.

5. WOs are printed out, which results in inefficiencies, cost of paper, and missing documents.
6. Verbally assigning WOs, which results in:
  - No way of knowing what is going on.
  - No record of resources being used.
  - Only the Supervisor has the knowledge.
7. Updating WOs in hardcopy, which results in inefficiencies and inability to leverage information on paper.
8. WO categories are not in Costa Maintenance dropdowns, which results in:
  - Only City facilities appear in dropdowns.
  - Inability to evaluate, track, and search.
  - Inability to justify resource needs.
9. Supervisor marks WOs 'closed' instead of doing it in the field, which results in staff time, inefficiencies, and customer service.
10. Keeping separate handwritten logs, which results in inefficiencies and handwritten notes may not be legible.
11. Not able to create Year End Reports for Transportation, which results in:
  - Not being to evaluate and justify resources for staffing and budget requests.
  - It is harder to gather data.
  - Inability to leverage data to provide to other departments, to identify trends, and recurrences.
  - Inability to graphically illustrate maintenance repairs and needs, spatially and/or by Council District Transportation.
12. Nonspecific requests received via email, phone, and in person, which results in poor customer experience.
13. Reviewing prior history is a challenge. Rely on institutional knowledge to check prior history, which results in overlooking past history, prior decisions, or inconsistent actions.
14. The data is in Excel, or do not have the data in a single location, which results in collecting data that already exists or overlooking data.
15. Manager unavailability resulting in delays.
16. Impacting QAQC, which results in poor service.
17. Manager approval in hardcopy, which results in delays.
18. May have hardcopy WO iterations, back and forth discussions before a WO is approved, which results in impacting the accuracy and delays.
19. Scanning and emailing WOs, which results in delays and staff time.

**Recommendations:**

- Leverage existing AssetWorks software to meet the needs of Public Works.
- Allocate an Application Specialist.

**Features & Functions**

- Electronic Work Orders.
- Update workorders electronically.
- Categories of WOs:
  - Streets & Parks:

- Pothole filling
  - Sidewalk grinding
  - Landscape issues
  - Bulky item pickup
  - Tree evaluations
  - Playground issues
  - Street sweeping
  - Etc.
- Facilities:
  - Plumbing issues
  - Electrical issues
  - Pest control
  - HVAC
  - Painting
  - Furniture
  - Etc.
- Transportation:
  - Install signs
  - Paint red curbs
  - Install repair signs
  - Install pavement markings
  - Install bikeway treatments
  - Striping
  - Install temporary traffic control
  - Etc.
- Close WOs electronically in the field.
- Ability to provide comments in WOs.
- Log Categories:
  - Pothole Log:
    - Date
    - Location
    - Worker
    - Work Performed
  - Sidewalk Grinding Log:
    - Date
    - Location
    - Size of offset
    - Worker
    - Description
  - Bulky Item Pickup Log:
    - Mattress
  - Playground Repair Log:
    - Date
    - Location
    - Worker
    - Description

- Transportation Requests: Identify specific attributes:
  - Location
  - North, South, East, West
  - Description
  - Geocoding
  - City boundaries
- Contemporary Graphical User Interface:
  - Dropdowns:
    - Limb down
    - Tree down
    - Tree evaluation
- One central system for everybody.
- Workflow:
  - Routing
  - Notifications
  - Review & Approve
  - Review & Return for Edits
  - Delegation
  - Forms
  - E-signatures
- Database of history:
  - Prior efforts at location
- Tracking database of traffic and speed data.
- Transportation:
  - Install signs
  - Paint red curbs
  - Install repair signs
  - Install pavement markings
  - Install bikeway treatments
  - Striping
  - Install temporary traffic control
  - Etc.
- Citizen Log:
  - Name
  - Date
  - How received
  - Issue
  - Location
  - Action
  - Status
- Web enabled.
- Appropriate access and security levels.

**Facilities, Parks, Streets Reports**

- Response to Claim Report (Costa Maintenance)
- Pothole Log Claims
- Reports by Location
- Claim Reports
- Incident Reports
- Type of Work
- Assigned To Reports
- Work Performed Reports
- Year End Reports
- Ad Hoc Reports

**Transportation Reports**

- Total Volume of Citizen Requests by type:
  - Parking
  - Street Sweeping
  - Etc.
- Geographic Mapping by category

**Interfaces**

- GIS
- 311
- TAGRS

**Other**

- Improve 311 prompts

**Benefits:**

- **Facilities, Parks, Streets**
  - Improve efficiencies
  - Faster delivery of service.
  - Less confusion.
  - Easy to train.
  - More clarity
  - Better identifies what the need is
  - Hardcopy would not get lost.
  - Improve accountability.
  - More user friendly and accurate reports.
  - Reduce staff time.
  - Information would be in one place.

- **Transportation**
  - Improve consistency.
  - Better solution outcomes.
  - More rapid decision making.
  - Avoid duplicate data collection
  - Improve efficiency.
  - Higher quality outcomes.
  - Staff time savings.

|              |                                                                |                           |
|--------------|----------------------------------------------------------------|---------------------------|
| <b>TBD 4</b> | <b>Centralized Software Training</b>                           | <b>Source:</b> MI12,ITFG4 |
|              | <b>Council Goal:</b> 1. Recruit and retain high-quality staff. |                           |

**Findings:**

- GIS Training: The management interview with the City Manager revealed the City is not using GIS to its full potential. Do not know if this is a staffing or staff knowledge limitation. There are a lot of other city websites that display spatial information, and what is happening in the community, e.g., constituents can see trees being cut. This could be useful to help inform the community and serve as an information source.
- The Software/Database IT Focus Group with IT and management revealed:
  - The City does not have a centralized software training budget.
  - Initial training is done when systems are installed, but there is no ongoing training as staff leave, e.g., AssetWorks.

**Impacts:**

- Loss of institutional knowledge.
- There are no champions in the department where a lot of money has been spent.

**Recommendation:**

- Establish a centralized training budget for IT and department staff on existing and new software as required, for example:
  - Provide training on the following:
    - GIS
    - Laserfiche
    - AssetWorks
    - TESSA
    - Etc.
  - Have staff take advantage of online training materials and videos.
  - Have each department identify their own SMEs.

**Benefits:**

- Faster, more transparent public services.
- Better emergency response & public safety.
- More accurate and accessible public maps.
- Stronger community planning and development.

- Environmental protection & sustainability.
- Enhanced public communication.
- Supports smart city initiatives.
- Greater equity in service delivery.
- Make better use of new technologies.
- More knowledgeable and productive staff.
- Better return on investments.

|                                                                                    |                                     |                      |
|------------------------------------------------------------------------------------|-------------------------------------|----------------------|
| <b>TBD 5</b>                                                                       | <b>VMware Redundant Server Farm</b> | <b>Source:</b> ITFG1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                     |                      |

The Infrastructure IT Focus Group with IT staff and management revealed a lack of a VMware Redundant Server Farm. If Dispatch ever lost network connectivity to PD, they would not be able to use the CAD system. This results in the following:

- PD Dispatch would have to manually enter calls for services.
- Dispatch would have to enter call data into CAD after the system is restored.
- Recovery backups are delayed depending on how much storage is being recovered, days to month.
- Tape backup technology is becoming obsolete.

**Recommendations:**

- Install separate VMware redundant server farms in the dispatch service center.
- Dispatch CAD Redundancy.
- Have main switch in Communications.
- Replace all tape libraries.
- Eliminate tape storage and move to cloud storage.
- Battery with extended life and connection with a secondary generator.

**Benefits:**

- Dispatch staff would not have to reenter call.
- Keeps Dispatch up and running when City Hall is down.
- Keeps PD and Fire up and running in the field.
- Would eliminate driving tapes around.
- Access data immediately.

**TBD 6.1, 6.2, and 6.3 have been left blank intentionally as they are described in HW 3 Council Chambers AV.**

|                                                                                    |                         |                    |
|------------------------------------------------------------------------------------|-------------------------|--------------------|
| <b>TBD 7</b>                                                                       | <b>Fleet Management</b> | <b>Source: RW4</b> |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                         |                    |

### Findings:

The Rapid Workflow® workshop with Public Works - Asset Management revealed the following:

### Preventative Maintenance: Fleet

1. Data entry of new equipment, which results in:
  - Delays the work.
  - Cannot look up parts.
  - Do not have equipment data.
  - Cannot charge time or money to work.
  - Cannot document what they do to equipment.
2. Deletion of old equipment, which results in:
  - Can charge out parts to an old piece of equipment.
  - Mis-documentation.
3. Human errors, sometimes people don't read their emails or forget to add specific equipment to their respective PM schedules, which results in delays to the Work Order and unsatisfactory customer service.
4. Delays in getting POs and funding, which results in losing vendors or inability to get equipment.

### Streets

5. Inventory Maintenance: Everything is done on paper. Records and work assignments are kept in file cabinets.
6. Work Assignment: Everything is done on paper. Instructions get lost and some things are unclear.
7. Verifying Work: Everything is on paper. Have to physically go out and check. Do not have a system to keep files and photos in. Everything is kept in a filing cabinet.

The foregoing results in:

- Managing paper.
  - Searching through paper.
  - Cannot leverage paper.
  - Lack of access to quick history data.
  - Lack a good inventory of parts and equipment used on a daily basis.
  - No Disaster Recovery for data.
8. Inspection: Lack of standards amongst staff, which impacts the ability to follow up on standard or track the work.
  9. Lack a complete inventory of assets, which results in no history of work done on assets.

**TBD 8.1 and 8.2 have been left blank intentionally as they are described in E SW 6 AI Tools.**

|                                                                                |                       |                         |
|--------------------------------------------------------------------------------|-----------------------|-------------------------|
| <b>TBD 9</b>                                                                   | <b>New CAD System</b> | <b>Source:</b> MI3, MI4 |
| <b>Council Goal:</b> 2. Strengthen public safety, improve the quality of life. |                       |                         |

**Findings:**

The Management Interview with the Fire and Police Department revealed the CAD Public Safety for CAD, PD, and Fire & Communications needs updated functionality.

**Recommendations:**

- Upgrade CAD Public Safety.
- Determine whether current CST CAD is meeting Public Safety needs or requires replacement.

**Benefits:**

- Faster response times.
- Improved efficiency & workflow.
- Enhanced accuracy & data quality.
- Better situational awareness.
- Improved communication
- Enhanced Officer/Responder safety.
- Comprehensive reporting & analytics.
- Integration with other systems: RMS, MDTs, GIS, 911 Call Handling.
- Fire station alerting systems, Video/ALPR systems, traffic management.
- Resource optimization.
- Audit trail & accountability.

**TBD 10, 11, and 12 have been left blank intentionally as they are described in M 1 IT Resourcing.**

|                                                                                |                                     |                              |
|--------------------------------------------------------------------------------|-------------------------------------|------------------------------|
| <b>TBD 13</b>                                                                  | <b>Real Time Information Center</b> | <b>Source:</b> RW8, MI1, MI4 |
| <b>Council Goal:</b> 2. Strengthen public safety, improve the quality of life. |                                     |                              |

The Rapid Workflow workshop related to a Real Time Information Center (RTIC) produced a number of IT requirements. This is a major project which will have various integrated subsystems.

**Findings:**

The Rapid Workflow® workshop with Police – CAD & Real Time Information Center revealed:

- The City is currently in a survey phase, seeing what other agencies are doing and using. Assessing where the RTIC will exist, who is going to staff it, and what tech will be used.
- Limited testing has been completed including the evaluation for a drone program and traffic camera integration for RTIC.

The Management Interview with the Police Department revealed the need for the RTIC infrastructure to go operational. The Management Interview with Public Works revealed PD wants to develop a RTIC, which the Orange County Sheriff has.

**Recommendations:**

- Allocate budget for IT equipment after PD concludes its study and a determination is made as to what the systems requirements will be.
- City successfully completed a pilot to test solutions for providing closed circuit television feed to PD. Link the City's traffic camera system with PD, while maintaining continuity of service and grant funding compliance.

**Benefits:**

- Have full range of services with computers in the conference rooms.
- Eliminate hiccups and limited use of Teams software in conference rooms.
- Documentation and protocols would be quickly available into the Dispatch Center, e.g., Intelicomm (by Apco) and ProQA (by Priority Dispatch), or equal.
- Improved outdate system.
- Integration with CAD systems.

**Recommendations:**

- Leverage existing AssetWorks software to meet the needs of Public Works.
- Allocate an Application Specialist.

**Fleet****Features & Functions**

- Scan/OCR equipment documentation and store in AssetWorks.
- Develop formal guidelines on content storage in AssetWorks.
- Adopt feature where you cannot add item without deleting an old version of it.
- Adopt the use of unique primary fields per piece of equipment.
- Maintain Inventory step where information is entered with its relationship to old and related equipment.
- More user friendly, more intuitive Graphical User Interface.
- Explore AssetWorks capabilities related to automatic reminders.
- Explore if automatic reminders can be sent to specific staff.
- Ensure the new ERP provides POs in a timely manner.

**Reports:**

- Cost reports.
- Cost by department, equipment type.
- Hours Worked.
- Audit Technicians (how many hours worked).
- Fuel by department, City, equipment.

**Interfaces:**

- Finance ERP.

**Other:**

- Staff training.

**Streets****Features & Functions**

- Adopt a street maintenance management system.
- Create an Inventory of Assets:
  - Signs
  - Storm drains
  - Sidewalk repairs
  - Street repairs
- Configure the system to perform all activities carried out:
  - Inventory
  - Assign
  - Evaluate the work
  - Inspections
  - Execution of the work
  - Close out the work
- Role based configuration to staff responsibilities.

**Reports:**

- Cost reports.
- Hours Worked.
- Audit Technicians (hours worked).
- Type of Work:
  - Report to the State
  - Large Item Collection
  - Potholes filled

**Interfaces:**

- TESSA.
- Costa Maintenance.
- GIS.

**Benefits:**

- **Preventative Maintenance: Fleet**
  - Reduce delays.
  - Bring and maintain fleet up to date.
  - Cost savings.
  - Improve overall value.
  - Reduce delays.
  - Decrease in out-of-service equipment.
- **Streets**
  - Improve ability to track work.
  - Have information available without going through binders and filing cabinets.
  - Staff time savings.

- Cost of paper, toner, printers, etc.
- Improved efficiency.
- Quantify work.
- Document who did the work.
- Better resources allocation.
- View report on hours worked.
- Eliminate the need to physically go out to check the work.
- Easy access to electronic photographs and spatial data.

|                                                                                   |                                   |                      |
|-----------------------------------------------------------------------------------|-----------------------------------|----------------------|
| <b>TBD 14</b>                                                                     | <b>Help Desk Ticketing System</b> | <b>Source:</b> ITFG4 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology |                                   |                      |

**Findings:**

The IT Organization and Operations IT Focus Group with IT staff and management revealed staff bypass the help desk (IRAF – IT Request & Authorization Form). This results in:

- Programming does not have a way to track requests.
- Ops having excessive workload and are unable to prioritize.

**Recommendations:**

- Procure a Ticketing system.
- Solidify this process with departments.
- Adopt best practice process for departments on the use of the help desk.

**Benefits:**

- Programming: Better tracking of requests.
- Ops: More efficiency and better organization.

|                                                                                    |                                                  |                    |
|------------------------------------------------------------------------------------|--------------------------------------------------|--------------------|
| <b>TBD 15</b>                                                                      | <b>Facilities Management – AssetWorks Module</b> | <b>Source:</b> MI1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                                  |                    |

**Findings:**

The Management Interview with Public Works revealed the department keeps hardcopy documenting when filters were changed, etc. If that person leaves, that knowledge goes away.

**Recommendations:**

- Leverage existing AssetWorks software to meet the needs of Public Works.
- Allocate an Application Specialist.
- Address requirements of each facility identifying maintenance schedules, specs, and other details available in one place.

**Benefits:**

- Centralized Asset & Facility Data: store all facility, asset, and equipment information in one system, reduce duplicate records and manual data entry.
- Streamlined Work Order & Maintenance Management.
- Improved Operational Efficiency: Digitizes inspections, approvals, and maintenance logs, reduces paper-based workflows.
- Better space & resource utilization.
- Enhanced Compliance & Risk Management: Tracks safety inspections, permits.
- Cost Reduction & Budget Control.
- Real-Time Reporting & Analytics.
- Mobile Access for Field Teams.
- Enhanced Customer/Employee Experience: faster response times for facility requests and self-service portals for staff to submit issues or reserve spaces.

|                                                                                |                                        |                    |
|--------------------------------------------------------------------------------|----------------------------------------|--------------------|
| <b>TBD 16</b>                                                                  | <b>TESSA Customer Portal/Reporting</b> | <b>Source:</b> MI5 |
| <b>Council Goal:</b> 2. Strengthen public safety, improve the quality of life. |                                        |                    |

**Findings:**

The Management Interview with the Economic & Development Services Department revealed the City implemented EnerGov/TESSA just shy of 2 years ago. It is not limited to this department. It is also used for planning and permit applications, and code enforcement files when they do cross department collaboration. Public Works and Parks use it too. When it went live in 2023, some areas were not configured. The TESSA Customer Portal/Reporting modules have not been fully developed, and the configuration was not completed.

**Recommendations:**

- Complete the development of the reporting functionality of EnerGov/TESSA .
- Fully develop the TESSA Customer Portal/Reporting modules.

**Benefits:**

- Improved customer service.

|                                                                                    |                        |                     |
|------------------------------------------------------------------------------------|------------------------|---------------------|
| <b>TBD 17</b>                                                                      | <b>Website and 311</b> | <b>Source:</b> MI12 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                        |                     |

**Findings:**

The Management Interview with the City Manager's Office revealed the department can do better on how they serve the community. When thinking about how people get information from the City or need assistance, constituents will go to the City's website. The City Manager identified the need for an interface and functionality for those platforms, having them to talk to each other, e.g., Tyler 311 system and the City Granicus Website. Use metrics to report on service levels.

**Recommendations:**

- Have one interface and functionality for these platforms.
- Use metrics to report on service levels.
- Explore hiring a Web Editor to maintain the City website.

**Benefits:**

- Improved resident experience.
- Improved service quality.
- Better data sharing and operational efficiency.
- Greater transparency and accountability.
- Enhanced transparency and public trust.

|                                                                                    |                                  |                    |
|------------------------------------------------------------------------------------|----------------------------------|--------------------|
| <b>TBD 18</b>                                                                      | <b>Conference Room Equipment</b> | <b>Source:</b> MI1 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                  |                    |

**Findings:**

The Management Interview with Public Works revealed challenges with conference room equipment. The City lacks the ability to use the full range of services with computers in the conference rooms. They also lack access to MS 365 Suite. Conference rooms have hiccups and limited use of Teams software.

**Recommendations:**

- Provide budget for Audio Video group.

**Benefits:**

- Have full range of services with computers in the conference rooms.
- Eliminate hiccups and limited use of Teams software in conference rooms.

|                                                                                    |                                         |                    |
|------------------------------------------------------------------------------------|-----------------------------------------|--------------------|
| <b>TBD 19</b>                                                                      | <b>Employee Information Application</b> | <b>Source:</b> RW7 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                         |                    |

**Findings:**

The Rapid Workflow® workshops with EOC - Communications revealed the inability to maintain updated employee contact information, which results in:

- A labor-intensive process. HR has to go through their files, update the information, and then enter it into a spreadsheet.
- Lack ability to make timely notifications to staff during a critical incident.

**Recommendations**

- Explore existing software modules in ERP.
- Implement an Employee Information Application to automate the process of collecting employee contact information and then push that information to Everbridge. Adopt the application to collect data across the City.
- Adopt a citywide policy that all staff must fill out/update their contact information.

### Benefits

- Improved communication with employees.

|                                                                                    |                                   |                    |
|------------------------------------------------------------------------------------|-----------------------------------|--------------------|
| <b>TBD 20</b>                                                                      | <b>IT Requirements Definition</b> | <b>Source:</b> MI5 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                   |                    |

### Finding:

- The Management interview with Economic Development noted that department has trouble converting their needs into IT requirements. They go back and forth on the configuration and reporting side before IT can proceed with solving the problem. The current situation, e.g., the lack of a translator, results in things taking longer.
- The Online Staff Survey did not align with the management interview findings. Requirements definition was rated slightly better than other areas of technical support. However, requirements were addressed from a broader standpoint.

### Recommendations:

- Articulate and fill out Project Intake Form that defines the process and method for documenting high level requirements, whether related to the help desk, system enhancements, or new system requirements.
- Adopt a formal methodology for articulating functional and technical specs (by IT staff and consultants).
- Adopt a Project Intake Form with key project information:
  - Project Description
  - Project Priority
  - Project Details
  - Timing
  - Data Types
  - Funding

### Benefits:

- Improved effectiveness by translating staff needs into technical project requirements and project definitions.
- Improved IT staff resource allocation.
- Improved workload planning and prioritization.
- Improved customer service.

|                                                                                        |                                    |                                  |
|----------------------------------------------------------------------------------------|------------------------------------|----------------------------------|
| <b>TBD 21</b>                                                                          | <b>City Access Control Systems</b> | <b>Source:</b> RW1,RW6,RW11,MI12 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, and technology. |                                    |                                  |

**Findings:**

The Infrastructure IT Focus Group with IT staff and management revealed access control systems (physical security) for City Hall and the Police department are disparate systems. [Note: This is not an IT item but a Facilities and HR item. IT only plays a supporting role in connecting the equipment to the network.] This results in:

- Makes upgrades and management twice the effort and inefficient.
- Requires more hardware resources for repairs for two different requirements.
- Coordinating two vendors is more costly to maintain than one system.

**Recommendations:**

- Replace both City Access Control Systems with one updated system to be more efficient, secure and centralize Access Control functions for the enterprise.
- PD-CH Access Control System.

**Benefits:**

- Modern software hardened for Cyber Security.
- Modern hardware and software with availability of replacement and repair parts.
- Centralized Management of all sites by PD & HR.
- Modern features, reports and configurations.

|                                                                                    |                                  |                    |
|------------------------------------------------------------------------------------|----------------------------------|--------------------|
| <b>TBD 22</b>                                                                      | <b>Enterprise VOIP Telephony</b> | <b>Source:</b> RW2 |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                  |                    |

**Findings:**

The Rapid Workflow® workshop with the Fire Department revealed they lack VOIP which results can impact communications.

**Recommendations:**

- Implement VOIP for the enterprise.

**Benefits:**

- Enhance City's telecommunication capability and reliability.

**Benefits:**

- Keep current with technology.
- Provide staff the tools they need to be as productive as possible.

**TBD 23.1, 23.2, 23.3, and 23.4 have been left blank intentionally as they are described in HW 2 PC/Laptop Device Replacement.**

|                                                                                    |                                  |                    |
|------------------------------------------------------------------------------------|----------------------------------|--------------------|
| <b>TBD 24</b>                                                                      | <b>Implement GIS Master Plan</b> | <b>Source:</b> ITD |
| <b>Council Goal:</b> 3. Maintain / enhance City facilities, equipment, technology. |                                  |                    |

## Findings:

The City IT department identified a lack of strategic use of GIS in the City, which results in:

- GIS is disjointed and cumbersome to access data and maps.
- Outdated spatial data.
- City staff lack access to GIS tools.
- Staff assumes data is in GIS, and sometimes it is not.
- There is a lack of GIS End User training.

## Recommendations:

- Develop a GIS Strategic Plan:
  - Executive Summary
  - Current State Assessment, Stakeholder Needs Assessment
  - Vision, Goals, and Guiding Principles
  - GIS Governance Framework
  - Technology and Architecture Recommendations
  - Data Strategy and Data Governance
  - Staffing and Organizational Recommendations
  - Implementation Roadmap, Budget Estimates
  - Performance Measures and Success Metrics
- Special consideration should be given to the following:
  - Enterprise GIS governance
  - Cross-department collaboration
  - Asset management integration
  - Public transparency
  - Emergency preparedness
  - Smart city initiatives
  - Mobile workforce enablement

## Benefits:

- More productive features for customer online spatial data.
- Improved staff efficiency.
- Faster response time.
- Confidence in spatial data.
- More streamlined use of GIS.
- Enhanced productivity.
- Enhanced accountability.

## Section 5 Benefits



### 5.1 IT Strategic Plan Roadmap Benefits

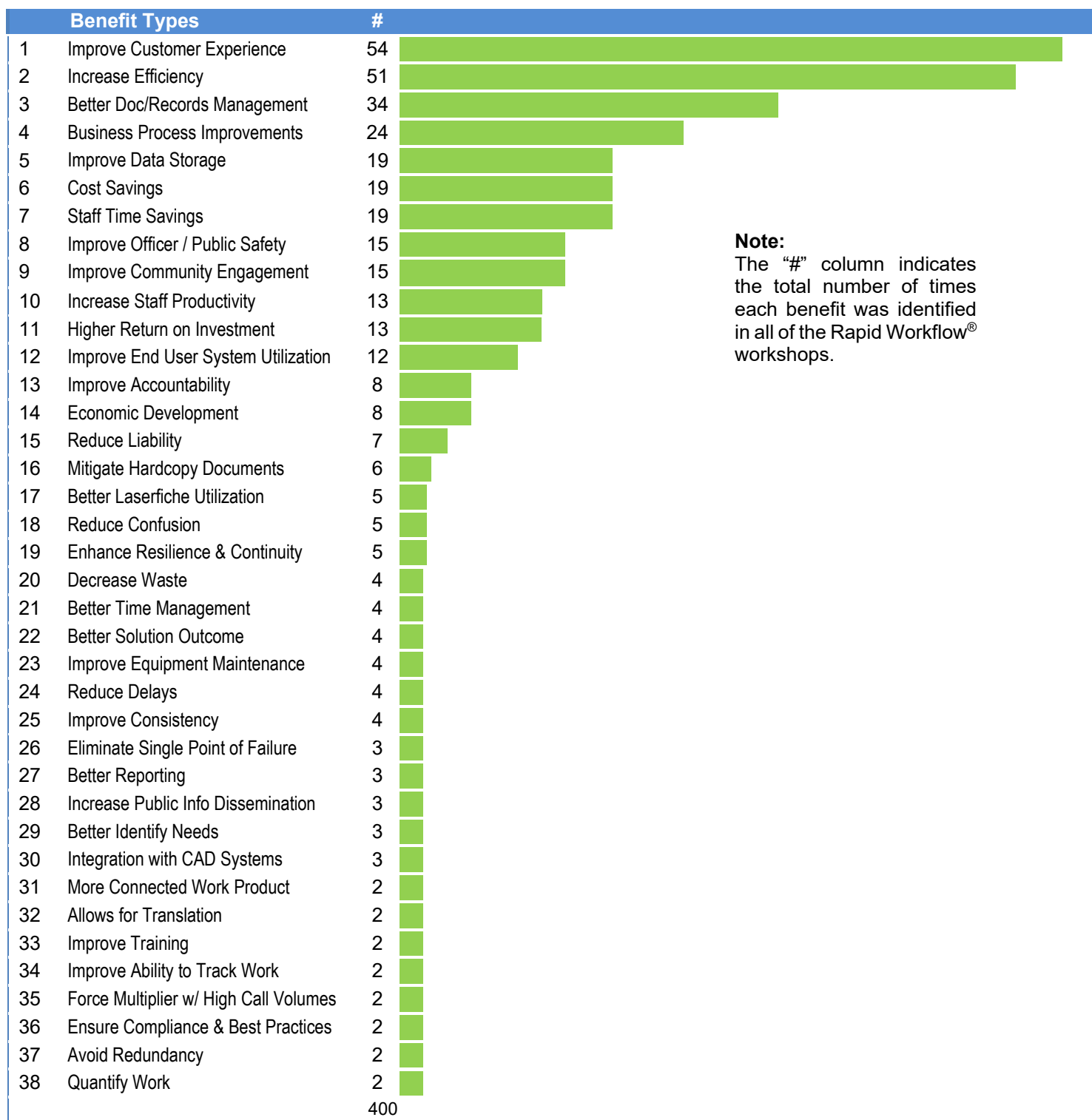
The ITSP project identified substantial potential benefits that could be realized by implementing the strategy. Qualitative and quantitative benefits were identified in the Rapid Workflow® workshops.

This information was leveraged to prioritize ITSP initiatives. A total of four hundred (400) potential benefits were identified from thirty-eight types (38) of benefits. This represents an average of 10.5 benefit opportunities per mission-critical business process assessed in the Rapid Workflow® workshops.



The figure on the following page, Figure 5.1.1: ITSP Potential Benefits lists the potential benefits to be derived by approving and funding the ITSP. (The number in the column shown as “#” indicates the number of times these benefits were identified in all the Rapid Workflow® workshops.) It also illustrates the level of magnitude of potential benefits the ITSP initiatives offer the City of Costa Mesa and its constituents. The top ten will be particularly impactful in assisting the City of Costa Mesa continue moving forward as the high performing City it already is.

**Figure 5.1.1: ITSP Potential Quantitative & Qualitative Benefits**



## Section 6 Appendix



### 6.1 Glossary of Terms

|    | Term                              | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | <b>Access Control</b>             | The term “access control” denotes a technique used to define or restrict the rights of individuals or application programs to obtain data from, or place data onto, a storage device.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2. | <b>AI</b>                         | <p>Artificial Intelligence (AI) is the field of computer science focused on creating systems or machines that can perform tasks that typically require human intelligence. These tasks include:</p> <ul style="list-style-type: none"> <li>• Learning from data (machine learning)</li> <li>• Understanding language (natural language processing)</li> <li>• Recognizing images and patterns</li> <li>• Making decisions and solving problems</li> </ul> <p>AI is about building systems that can analyze information, adapt, and improve over time without being explicitly programmed for every scenario. AI is the ability of a computer or machine to mimic human thinking and behavior.</p> |
| 3. | <b>Administrator</b>              | A role responsible for the day-to-day operation of the corporate records management policy. The tasks attributed to Administrators may be divided between several roles, with titles such as Records Manager, Records Officer, Archivist, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4. | <b>As-Is Business Process Map</b> | Graphical business process model used to depict the existing condition of a business process. Used for the analysis of current business process steps and activities. Typically produced with input from business subject matter experts and business process owners.                                                                                                                                                                                                                                                                                                                                                                                                                             |

|     | Term                                             | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.  | <b>Automated Workflow</b>                        | The tasks, procedural steps, organizations or people, required input and output information, and tools needed for each step in a business process. A workflow approach to analyzing and managing a business process can be combined with an object-oriented programming approach, which tends to focus on documents, data, and databases. This is commonly referred to as “Automated Workflow.”                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6.  | <b>Backbone</b>                                  | Another term for bus, the main wire that connects nodes. The term is often used to describe the main network connections composing the Internet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 7.  | <b>Bulk Load</b>                                 | An automatic data import of scanned documents utilizing the indexing schema attributes for subsequent search and retrieval of electronic documents/records stored in an ECMS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 8.  | <b>Business Intelligence (BI)</b>                | Often described as the set of techniques and tools for the transformation of raw data into meaningful and useful information for <u>business analysis</u> purposes. BI technologies can manage large amounts of unstructured data to help identify, develop and create new strategic business opportunities. BI allows for the easy interpretation of large volumes of data. Identifying new opportunities and implementing an effective strategy based on insights, providing businesses with a competitive market advantage. BI technologies provide historical, current, and predictive views of business operations. Common functions of business intelligence technologies are <u>reporting</u> , <u>online analytical processing</u> , <u>analytics</u> , <u>data mining</u> , <u>process mining</u> , <u>complex event processing</u> , <u>business performance management</u> , <u>benchmarking</u> , <u>text mining</u> , <u>predictive analytics</u> and <u>prescriptive analytics</u> . |
| 9.  | <b>Business Process Improvement (BPI)</b>        | Business process improvement (BPI) is a systematic approach to help an organization optimize its underlying processes to achieve more efficient results. The methodology was first documented in H. James Harrington's 1991 book Business Process Improvement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10. | <b>CCTV</b>                                      | Closed-circuit television (CCTV), also known as video surveillance, is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11. | <b>Change Management</b>                         | An approach to transitioning <u>individuals</u> , <u>teams</u> , and <u>organizations</u> to a desired future state. It focuses on how people and teams are affected by an organizational transition. It deals with many different disciplines, from behavioral and social sciences to <u>information technology</u> and business solutions. In a <u>project management</u> context, change management may refer to the <u>change control</u> process wherein changes to the scope of a project are formally introduced and approved.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12. | <b>Customer Relationship Management Software</b> | Customer Relationship Management, CRM, entails all aspects of interaction a company has with its customer, whether it be sales or service related.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|     | Term                                                | Definition                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13. | <b>Departmental Software</b>                        | Software providing functionality specific to a department in an organization, features and functions not required by any other department. In government, an example might be a Library Information System or Police Department 911 system, both systems which no other departments require. Departmental application software solves department-specific problems and may integrate with enterprise systems.            |
| 14. | <b>DOD 5015.2</b>                                   | Design Criteria Standard for Electronic Records Management Applications, DOD 5015.2-STD: A DOD and NARA approved set of requirements for Electronic Records Management applications.                                                                                                                                                                                                                                     |
| 15. | <b>E-Commerce</b>                                   | E-commerce is business that is conducted over the Internet using any of the applications that rely on the Internet, including interactive and transactional functions, e.g., online payments, registration and application submittals.                                                                                                                                                                                   |
| 16. | <b>E-Government</b>                                 | A generic term that refers to any government functions or processes that are carried out in <u>digital</u> form over the <u>Internet</u> . Local, state and federal governments set up central Web sites from which the public (both private citizens and businesses) can find public information, download government forms and contact government representatives.                                                     |
| 17. | <b>Electronic Document Management System (EDMS)</b> | Functionality to support the computerized management of electronic and paper-based documents. Associated components include a system to convert paper documents to electronic form, a mechanism to capture documents from authoring tools, a database to organize the storage of documents, and a search mechanism to locate the documents.                                                                              |
| 18. | <b>Enterprise Architecture (EA)</b>                 | A discipline for proactively and holistically leading enterprise responses to disruptive forces by identifying and analyzing the execution of change toward desired business vision and outcomes. EA delivers value by presenting business and IT leaders with signature-ready recommendations for adjusting policies and projects to achieve target business outcomes that capitalize on relevant business disruptions. |
| 19. | <b>Enterprise-wide</b>                              | Deployment or use of a single software application throughout all departments, divisions, or components of the organization.                                                                                                                                                                                                                                                                                             |
| 20. | <b>Enterprise Content Management System (ECMS)</b>  | An automated system with the functionality to capture, manipulate, retrieve, and publish the entire inventory of digital assets (e.g., web pages, office documents, databases, scanned images, digital photos, digital video, digital recordings, e-mail) created by an organization.                                                                                                                                    |
| 21. | <b>Electronic Record</b>                            | The information recorded in a form that requires a computer or other machine to process it and that satisfies the legal definition of a record according to section 3301 of Title 44 of United States Code (USC).                                                                                                                                                                                                        |

|     | Term                                               | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22. | <b>Electronic Records Management System (ERMS)</b> | A collection of hardware, software, staff, policies, and procedures that work in concert to enable an agency to effectively manage records electronically. A software product that identifies, classifies, and disposes of records according to specified records disposition policies.                                                                                                                                                                                                      |
| 23. | <b>Enterprise Resource Planning System (ERP)</b>   | Business management software that allows an organization to use a system of integrated applications to manage the business: e.g., Finance, Human Resources, Asset Management, Customer Relationship Management, Project Management, Business intelligence, to name a few.                                                                                                                                                                                                                    |
| 24. | <b>Enterprise Software</b>                         | Enterprise applications (e.g., CRM, ERP, BI) assist an organization in solving enterprise/city-wide problems. They integrate with other enterprise systems.                                                                                                                                                                                                                                                                                                                                  |
| 25. | <b>E-Services</b>                                  | The concept of e-service (short for electronic service) represents one prominent application of utilizing the use of information and communication technologies (ICTs) in different areas.<br><br>'E-Service constitutes the online services available on the Internet, whereby a valid transaction of buying and selling (procurement) is possible, as opposed to the traditional websites, whereby only descriptive information is available, and no online transaction is made possible.' |
| 26. | <b>Ethernet</b>                                    | A local-area network (LAN) architecture that uses a bus or star topology and supports data transfer rates of 10 Mbps.                                                                                                                                                                                                                                                                                                                                                                        |
| 27. | <b>Fiber Optics</b>                                | A high-bandwidth transmission technology that uses light to carry digital information. One fiber telephone cable carries hundreds of thousands of voice circuits. These cables, or light guides, replace conventional coaxial cables and wire pairs. Fiber transmission facilities occupy far less physical volume for an equivalent transmission capacity, which is a major advantage in crowded ducts. Optical fiber is also immune to electrical interference.                            |
| 28. | <b>File Plan</b>                                   | A document containing the identifying number, title, description, and disposition authority of files held or used in an office.                                                                                                                                                                                                                                                                                                                                                              |
| 29. | <b>E-Forms</b>                                     | Program development tools that build applications by designing electronic forms for data entry, update or processing. Electronic forms are designed with visual programming tools that allow fields, buttons and logos to be drawn directly on screen.                                                                                                                                                                                                                                       |
| 30. | <b>E-Signatures</b>                                | An electronic sound, symbol, or process attached to or associated with a contract or other record and used as the legal equivalent of a written signature.                                                                                                                                                                                                                                                                                                                                   |
| 31. | <b>Geographic Information System (GIS)</b>         | GIS is a collection of computer hardware, software, and geographic data for capturing, managing, analyzing and displaying every form of geographically referenced information, often called spatial data.                                                                                                                                                                                                                                                                                    |

|     | Term                                   | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 32. | <b>Image Capture (scanning)</b>        | A process whereby documents are scanned into a system and stored electronically. Imaging is the digital capture, storage, manipulation, and delivery of copies of digitized originals, which may be texts, manuscripts, pictures or other information types.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 33. | <b>Infrastructure</b>                  | An enterprise's complete collection of hardware, software, networks, data centers and facilities used to develop, test, operate, monitor and/or support information technology services.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 34. | <b>Interoperability</b>                | The ability of software and hardware on different machines from different vendors to share data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 35. | <b>Internet Service Provider (ISP)</b> | Refers to a company that provides Internet services, including personal and business access to the Internet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 36. | <b>IT Governance</b>                   | The processes that ensure the effective and efficient use of IT in enabling an organization to achieve its goals. IT demand governance (what IT should work on) is the process by which organizations ensure the effective evaluation, selection, prioritization, and funding of competing IT investments; oversee their implementation; and extract measurable business benefits. ITG is a business investment decision-making and oversight process, and it is a business management responsibility. IT supply-side governance (how IT should do what it does) is concerned with ensuring that the IT organization operates in an effective, efficient and compliant fashion, and it is primarily a CIO responsibility. |
| 37. | <b>ITS</b>                             | Short for Federal Intelligent Transportation Systems, it is a broad range of wireless and wired communications-based information and electronics technologies that are integrated into the transportation system and in vehicles themselves. ITS is made up of 16 types of technology-based systems.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 38. | <b>Life Cycle</b>                      | The records life cycle is the life span of a record from its creation or receipt to its final disposition. It is usually described in three stages: creation, maintenance and use, and final disposition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 39. | <b>Metadata</b>                        | In the context of records management, meta-data is the structured or semi-structured information which enables the creation, management, and use of records through time and within and across domains in which they are created.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 40. | <b>Open Data</b>                       | The idea that some data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control. The goals of the open data movement are similar to those of other "Open" movements such as open source, open hardware, open content, and open access. The term "open data" is recent, gaining popularity with the rise of the Internet and World Wide Web and, especially, with the launch of open-data government initiatives such as Data.gov and Data.gov.uk.                                                                                                                                                                           |

|     | Term                                              | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 41. | <b>Optical Character Recognition (OCR)</b>        | The recognition of printed or written text characters by a computer. This involves analysis of the scanned-in image and then translation of the character image into character codes, such as American Standard Code for Information Interchange (ASCII). OCR is applied to image (raster) files to create text-searchable files.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 42. | <b>PBX System</b>                                 | A private branch exchange (PBX) phone system that is delivered as a hosted service, typically by one of the major telephone companies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 43. | <b>Portable Document Format (PDF)</b>             | This format is proprietary to Adobe Inc. and is widely used as a de-facto data exchange method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 44. | <b>ThirdWave Rapid Workflow Process Modeling®</b> | US Patent 8615423 B1: A method of rapid workflow process modeling, which is established according to a triangulation principle. The method integrates issues of management, operation and technology including information technology that are three fundamentals of a triangulation principle to characterize challenges and opportunities for process improvement of any organization including military units, governmental agencies, and public and private business sectors. Specifically, the method is comprised of seven steps such as the As-Is process mapping, problem statements, impact statements, solution statements, benefit statements, To-Be process mapping and cost benefit analysis for generating a quantitative projection of the business cost reduction. Application of the method is able to address challenges and opportunities comprehensively and effectively for all aspects of the organizational process improvement. |
| 45. | <b>Record</b>                                     | The information, regardless of medium, details business transactions. Records include all books, papers, maps, photographs, machine-readable materials, and other documentary materials, regardless of physical form or characteristics. Records are made or received by an Agency under Federal law or in connection with the transaction of public business. Records are preserved or appropriate for preservation by that Agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government, or because of the value of data in the record.                                                                                                                                                                                                                                                                                                          |
| 46. | <b>Records Manager</b>                            | Individuals who are responsible for records management administration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 47. | <b>Retention Period</b>                           | The length of time that a record must be kept before it can be destroyed. Records not authorized for destruction are designated for permanent retention. Retention periods for temporary records may be expressed in two ways: <ul style="list-style-type: none"> <li>• A fixed period from the time records in the series or system is created. Normally, a fixed period that follows their regular cutoff dates. For example, the phrase “destroy after 2 years” provides continuing authority to destroy records in a given series 2 years</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                |

|     | Term                                                           | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                                                | <p>after their creation (normally 2 years after their regular cutoff date).</p> <ul style="list-style-type: none"> <li>• A fixed period after a predictable event. Normally, a fixed period following the systematic cutoff applied after completion of an event. The wording in this case depends on the kind of action involved.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 48. | <b>Retention Schedule</b>                                      | A plan for the management of records listing types of records and how long they should be retained by the organization for business purposes; the purpose is to provide continuing authority to dispose of, transfer, or archive records.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 49. | <b>SAN</b>                                                     | A Storage Area Network (SAN) is a network that provides access to consolidated, block-level data storage. SANs are primarily used to enhance storage devices, such as disk arrays, tape libraries, and optical jukeboxes, accessible to servers so that the devices appear to the operating system as locally attached devices.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 50. | <b>Service-Oriented Architecture (SOA)</b>                     | An <u>architectural pattern</u> in computer software design in which application components provide services to other components via a <u>communications protocol</u> , typically over a network. The principles of <u>service-orientation</u> are independent of any vendor, product or technology. Services can be combined to provide the functionality of a large software application. <sup>[3]</sup> SOA makes it easier for software components on computers connected over a network to cooperate. Every computer can run any number of services, and each service is built in a way that ensures that the service can exchange information with any other service in the network without human interaction and without the need to make changes to the underlying program itself. |
| 51. | <b>Taxonomy</b>                                                | The study of the general principles of scientific classification: systematics; classification; especially orderly classification of plants and animals according to their presumed natural relationships. Taxonomy is a high-level, hierarchical classification for documents and records that facilitates the management (storage, access, retrieval, revision, archiving, and disposition) of recorded information throughout its life cycle. A taxonomy is a living document that changes as the work within the company changes. It is never final because organizations constantly change their content types, processes and organizational structures.                                                                                                                               |
| 52. | <b>ThirdWave Strategic Planning Triangulation® Methodology</b> | ThirdWave's Strategic Planning Triangulation methodology is a powerful technique facilitating validation of data through cross verification from two or more sources. This is accomplished by the collection and synthesis of data from three perspectives: Management (Organizational, policy and finance), Operational (business process and practices), and Information Technology (enterprise-wide systems). It applies several research methods in the study of the same phenomenon to produce comprehensive and thorough strategies based on a compelling business case.                                                                                                                                                                                                             |

|     | Term                              | Definition                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 53. | <b>To-Be Business Process Map</b> | Graphical business process model used to depict the future state (To-Be) condition of a business process. Used for the design of reengineered business process steps and activities. Typically produced with input from business subject matter experts/business process owners.                                                                                                                 |
| 54. | <b>Waterfall Methodology</b>      | The waterfall model is a sequential design process, used in software development processes, in which progress is seen as flowing steadily downwards (like a waterfall) through the phases of conception, initiation, analysis, design, construction, testing, production/implementation and maintenance.                                                                                         |
| 55. | <b>Web Browser</b>                | Web browser is a software application used to locate, retrieve and display content on the World Wide Web, including Web pages, images and video.                                                                                                                                                                                                                                                 |
| 56. | <b>Wi-Fi</b>                      | Wireless-Fidelity certification mark issued by the Wi-Fi Alliance to certify that a product conforms to the 802.11b, g and a standard for WLANs.                                                                                                                                                                                                                                                 |
| 57. | <b>XO ISP Bandwidth</b>           | Bandwidth Shaping. The process of manipulating, managing or controlling (shaping) portions of a network connection to the outside world and determining an allowed bandwidth consumption based on types of activities. The term is commonly used in conjunction with Internet Service Providers (ISP), where it refers to a tool that is used to limit or direct bandwidth consumption by users. |