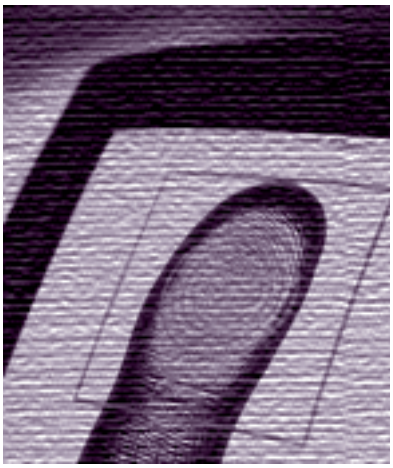
U.S. Department of Justice
Office of Community Oriented Policing Services

COPS
COMMUNITY ORIENTED POLICING SERVICES
U.S. DEPARTMENT OF JUSTICE

LAW ENFORCEMENT TECH GUIDE FOR

Small and Rural Police Agencies

A Guide for Executives, Managers, and Technologists



Copyright © 2005 SEARCH Group, Incorporated. The U.S. Department of Justice reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, this book for Federal Government purposes. This document may be freely distributed and used for non-commercial and educational purposes. No part of this book may be reproduced in any form, by any means (including electronic, photocopying, recording, or otherwise) for commercial purposes without the prior permission of the U.S. Department of Justice or the authors.

U.S. Department of Justice
Office of Community Oriented Policing Services

LAW ENFORCEMENT TECH GUIDE FOR

Small and Rural Police Agencies

A Guide for Executives, Managers, and Technologists

By William H. Romesburg

This publication was supported by cooperative agreement #2003CKWXK054 awarded by the U.S. Department of Justice Office of Community Oriented Policing Services to SEARCH Group, Incorporated, 7311 Greenhaven Drive, Suite 145, Sacramento, CA 95831. The opinions or recommendations contained herein are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice. References to specific organizations, products, or services should not be considered an endorsement of the product by the author(s) or the U.S. Department of Justice. Rather, the references are illustrations to supplement discussion of the issues.

U.S. Department of Justice

Office of Community Oriented Policing Services

Director
1100 Vermont Avenue, NW
Washington, D.C. 20530

Dear Colleague:

Like organizations and managers in any field, today's law enforcement agencies and the professionals that run them are seeking more effective methods for achieving results. When officers and deputies in the field can receive information faster, when commanders and supervisors have a better understanding of crime and disorder trends, and when tasks can be accomplished more efficiently, the end result is inevitably a safer and more secure community.

This guide, which is one of the many resources that the Department of Justice offers to law enforcement, is intended to provide you with practical information that supports your efforts to successfully integrate new technology systems into your agency's operations.

Having awarded more than 29,000 grants to small and rural law enforcement agencies over the years, totaling more than $3 billion, the Office of Community Oriented Policing Services is keenly aware of the unique challenges and opportunities that confront small and rural departments during this process. We recognize that in many smaller agencies the individual responsible for implementing the new system is likely to have a variety of other duties, and will benefit from a concise guide that focuses on the critical aspects of implementing new technology. Therefore, we developed a publication that speaks exclusively to your needs as you go through the process of planning, procuring, and implementing your new system.

I trust that you will find this particular guide helpful, and encourage you to visit **www.cops.usdoj.gov** to learn about the other numerous resources offered by the COPS Office.

Carl R. Peed
Director
Office of Community Oriented Policing Services
U.S. Department of Justice

Contents

Acknowledgments x
About the Author xi

About the Guide

About the Guide 3
Assumptions...About Your Agency 4
Assumptions...About You 5
Assumptions...About Your Project 5
How this Guide is Organized 6
Definition of Icons 7

Four Facts about Small and Rural Police Agency IT Projects

Four Facts about Small and Rural Police Agency IT Projects 11

Part I: Preliminary Project Planning

Chapter 1
Determining the Need 21
Preliminary Scoping Exercise 22
Conducting a Needs Analysis 24
Remember Grant Compliance 26

Chapter 2
Looking Within 29
Available People 29
Available Financing 31

Chapter 3
Defining the Alternatives 35
Creating Alternatives to Consider 36
Part I Reality Check 38

Part II: Creating a Project Plan

Chapter 4
Project Plan Components 45
The Purpose of a Project Plan 45
Project Background 46
Project Approach 46
Project Goals and Objectives 47
Project Scope Definition 47
Project Budget 47
Initial Risk Assessment 48
Assumptions About the Project 48
Project Constraints 48
Project Timeline 48
Roles and Responsibilities of Participants 49
Issue Management 51
Communications Plan 51
Approvals 52
Part II Reality Check 52

Part III: Acquiring the Technology

Chapter 5
Understanding Procurement and Contracting 57
Do You Need to Procure (Buy) the Technology? 57
Understanding the Bidding Process 58
Choosing a Procurement Approach 59
Creating a Bid Document 61
Functional Specifications 62
Evaluating and Selecting a Vendor 63
Overview of the Negotiation Process 63
Part III Reality Check 65

Part IV: Implementing and Maintaining the Technology

Chapter 6
Implementing Technology 71
What to Expect During Implementation 71
Direct Training vs. Train-the-Trainer 72
How to Keep Vendors to the Task 73
Acceptance Testing 74

Chapter 7
Keeping it All Together 77
System Maintenance 77
How to Handle Version Upgrades..... 77
Part IV Reality Check 78

Epilogue 79

Acknowledgments

This publication was prepared by SEARCH, The National Consortium for Justice Information and Statistics, Francis X. (Paco) Aumand III, Chair, and Ronald P. Hawley, Executive Director. The project director was Kelly J. Harris, Deputy Executive Director of Programs. William H. Romesburg, Law Enforcement Information Technology Specialist, wrote this publication. Linda Townsdin, Senior Writer/Editor, and Twyla R. Putt, Manager, Corporate Communications, edited this publication. Jane L. Bassett, Publishing Specialist, provided layout and design. Chris Roebuck, Webmaster, provided web site coordination. The Federal project manager was Debra Cohen, Ph.D. of the U.S. Department of Justice Office of Community Oriented Policing Services (COPS).

Suggested Citation
William H. Romesburg, *Law Enforcement Tech Guide for Small and Rural Police Agencies, A Guide for Executives, Managers, and Technologists*, Washington, D.C.: U.S. Department of Justice, Office of Community Oriented Policing Services, 2005.

About Us

SEARCH, The National Consortium for Justice Information and Statistics, is dedicated to improving the quality of justice and public safety through the use, management, and exchange of information; application of new technologies, and responsible law and policy, while safeguarding security and privacy.

We assist local, tribal, county, regional, and state agencies and organizations—including: law enforcement and public safety; first responders; prosecution; defense; adjudication; detention; corrections and probation; and other disciplines, such as transportation, drivers' licensing, vehicle registration, public health, and social services—through a broad array of activities, resources, and products. Our focus is on criminal history systems, integrated justice information systems, information technology (planning, purchasing, managing), and cybercrime investigation. Our services include in-house and onsite technical assistance and training, resource development (web sites, publications, white papers, conferences, workshops), public policy assistance, and model development (model legislation, standards and procedures, best practices) in these focus areas. SEARCH online resources provide information on law enforcement IT, integrated justice, justice software solutions, and IT acquisition at **www.search.org**.

About the Author

William H. Romesburg is a SEARCH Law Enforcement Information Technology Specialist, where he provides technical assistance in automated systems development, automation planning, and integration of justice information systems to justice agencies nationwide. As Senior Vice President of Cit Com, Inc., he manages public safety technology programs, including request for proposal preparation, analysis, and contract negotiations. Bill has served as a consultant to dozens of law enforcement agencies throughout the United States on public safety and automation projects, including agencies in Alaska, California, Texas, and Ohio. He has also held several law enforcement positions, including police and fire dispatcher for 3 years and sworn police officer for 6 years. Bill has a master's degree in Public Administration from California State University, Fullerton, and earned a Level 2 certification from the Project Management Institute.

Bill has co-presented a series of national technical assistance workshops on "Law Enforcement Technology IT Planning and Implementation" to COPS MORE (Making Officer Redeployment Effective) grantees, providing tools and resources to help agencies overcome obstacles to technology implementation. Bill's efforts focused on mobile computing issues and technologies, as well as computer-aided dispatch and records management systems (CAD/RMS), procurement processes, and other issues.

Bill's background in IT project management, combined with the onsite work he has conducted nationwide and the valuable lessons learned from the COPS MORE workshops, means that he has seen what works and what doesn't. His experience has shown that employing tools to improve information management—such as decision-making structures, strategic plans, project management best practices, and policies and standards—are critical to the success of law enforcement IT acquisition.

Law Enforcement Tech Guide for Small and Rural Police Agencies Review Committee

SEARCH extends its deepest thanks and appreciation to the following members of the Law Enforcement Tech Guide for Small and Rural Police Agencies Review Committee, who participated in an advisory capacity during the preparation of this Guide. These individuals have direct experience in law enforcement IT planning, procurement, implementation, and management within small and rural police departments, and generously contributed their time and expertise, providing critical review and comments throughout this document. We'd like to extend special thanks to Jack Jankowski; his contribution to the successful completion of this Guide cannot be overstated.

Jack Jankowski, Lieutenant (retired)
Long Beach (CA) Police Department

Frederick A. Carmen Jr., Lieutenant (retired)
Laurel (MD) Police Department

Gary Cordner, Professor
College of Justice and Safety, Eastern Kentucky University

Bill LeFebvre, Communications and Technology Project Manager
Largo (FL) Police Department

David Luhta, Chief
Painesville (OH) Police Department

We would also like to thank members of the Bureau of Justice Assistance and the Department of Justice's (DOJ) Global Justice Information Sharing Initiative (Global) for lending their expertise in a review of this document.

About the Guide

A Library of Tech Guide Resources

This Tech Guide for small and rural police agencies is intended to serve as a companion guide to *Law Enforcement Tech Guide: How to plan, purchase and manage technology (successfully!)*. The original Tech Guide was published in 2002 by the U.S. Department of Justice Office of Community Oriented Policing Services (COPS) and was developed as a step-by-step guide to help law enforcement agencies as they implement new technologies.

This small and rural police agencies Tech Guide is intended to complement and be used along with the original Tech Guide. As such, this Guide makes frequent references to content in the original Tech Guide. It may help to keep the original Tech Guide close at hand so you can refer to particular pages and sections as needed.

This Tech Guide is one of a series of four topic-specific Tech Guides funded by the COPS Office. The four companion Tech Guides that will form a comprehensive library of technology resources, along with the original Tech Guide, are:

- *Law Enforcement Tech Guide for Small and Rural Police Agencies: A Guide for Executives, Managers, and Technologists*
- *Law Enforcement Tech Guide for Creating Performance Measures That Work!, A Guide for Law Enforcement Executives and Managers to Assess and Manage Performance*
- *Communications Interoperability: A Tech Guide for Interagency Communications Projects*
- *IT Security Policies Tech Guide: How to Develop and Implement Information Technology Security Policies in a Law Enforcement Environment (Successfully!)*

See Page 3 for details on how to download or order your copy of the original Tech Guide.

About the Guide

In 2002, SEARCH, under a cooperative agreement with the U.S. Department of Justice Office of Community Oriented Policing Services (COPS), created the *Law Enforcement Tech Guide: How to plan, purchase and manage technology (successfully!)*.[1] The publication sought to provide law enforcement technology practitioners with a useful, hands-on guide for implementing various types of technology, including computer-aided dispatch (CAD), records management systems (RMS), and mobile data systems.

To supplement the content of the Tech Guide, SEARCH hosted several national conferences and workshops devoted to assisting Federal grant recipients to better manage their information technology (IT) initiatives. The attendees included representatives from hundreds of agencies of varying sizes.

We began the conferences with a simple series of questions designed to illustrate the types of roles that conference attendees were playing in their agencies back home. First, we would ask attendees to raise their hands if they were a Chief or Sheriff of their organization. Then, we'd ask to see how many grant managers were present, followed by a showing of project managers, and ultimately, how many technical staff were in the room. We quickly noticed a surprising trend: Many people had their hands raised throughout each question! As we explored this trend further, we discovered that the majority of such "multitaskers" were from small or rural police agencies.

SEARCH came to know small and rural police agencies very well. At each conference, and through many technical assistance engagements,[2] SEARCH was confronted with the complexities of implementing technology in small and rural agencies. Representatives from small and rural agencies told us that the original Tech Guide was excellent, but seemed to be written more for mid- or large-sized police organizations that have enviable human and financial resources. Moreover, some asked that the Guide be "pared-down," to just cover the basic elements for a successful project.

---

[1] Kelly J. Harris and William H. Romesburg, *Law Enforcement Tech Guide: How to plan, purchase and manage technology (successfully!)*, A Guide for Executives, Managers and Technologists, Washington, D.C.: U.S. Department of Justice, Office of Community Oriented Policing Services, 2002. Request hard copies from the COPS Office Response Center at 1-800-421-6770, or email: askCopsRC@usdoj.gov. Copies are available for download from the COPS web site (**www.cops.usdoj.gov**) or the SEARCH web site: **http://www.search.org/files/pdf/techguide.pdf**.

[2] For more information on the SEARCH technical assistance program, visit **http://www.search.org/services/ta/**.

HOW TO USE THIS GUIDE

The *Law Enforcement Tech Guide for Small and Rural Police Agencies* is intended to provide strategies, best practices, recommendations, and ideas for successful IT planning and implementation. This Guide should not be construed as specific legal advice for any specific factual situation. This publication is meant to serve as a guideline for situations generally encountered in IT planning and implementation environments (although, the recommendations herein can also be used for nearly any project your agency may undertake). It does not replace or supersede any policies, procedures, rules, and ordinances applicable to your jurisdiction's procurement and contract negotiations. This Guide is not legal counsel and should not be interpreted as a legal service.

Before long, we found many small and rural agencies asking for a version of the document that was geared toward themselves, and the challenges they confront with implementing technology.

SEARCH responded to those requests and created this companion to the original Tech Guide. Like the original, this Guide is written to provide small and rural agencies with a guidebook for implementing technology that is based on proven successes and generally accepted project management techniques. Although the *Law Enforcement Tech Guide for Small and Rural Police Agencies* is a great resource on its own, we suggest keeping the original Tech Guide close at hand. The two guides are complementary and, when combined, make a comprehensive toolset.

Assumptions...

...About Your Agency

American law enforcement is widely distributed among thousands of independent and relatively small police agencies. In fact, of the 12,666 local police agencies in the U.S., 89.5% employ fewer than 50 sworn officers.[3] In preparing this Guide, we targeted those small and rural agencies that employ fewer than 50 officers or have service populations of fewer than 50,000.

[3]Matthew J. Hickman and Brian A. Reaves, *Census of State and Local Law Enforcement Agencies, 2000*, Washington, D.C.: U.S. Department of Justice, Bureau of Justice Statistics, NCJ 194066, October 2002, at pp. 1, 5. This statistic refers to general purpose local police departments, and excludes sheriff's offices, the primary law enforcement agency in each State, State or local agencies with special jurisdiction or enforcement responsibilities, and Texas county constables.

...About You

Based on our research, the reader of this Guide is likely to be a sworn officer who demonstrated his/her technology prowess by being the first in the department to surf the Web, buy a PC, or be caught reading a copy of the original Tech Guide. Regardless of your indoctrination, you are very likely to be the person who writes grants, manages technology, works a patrol shift, and is accountable to your community.

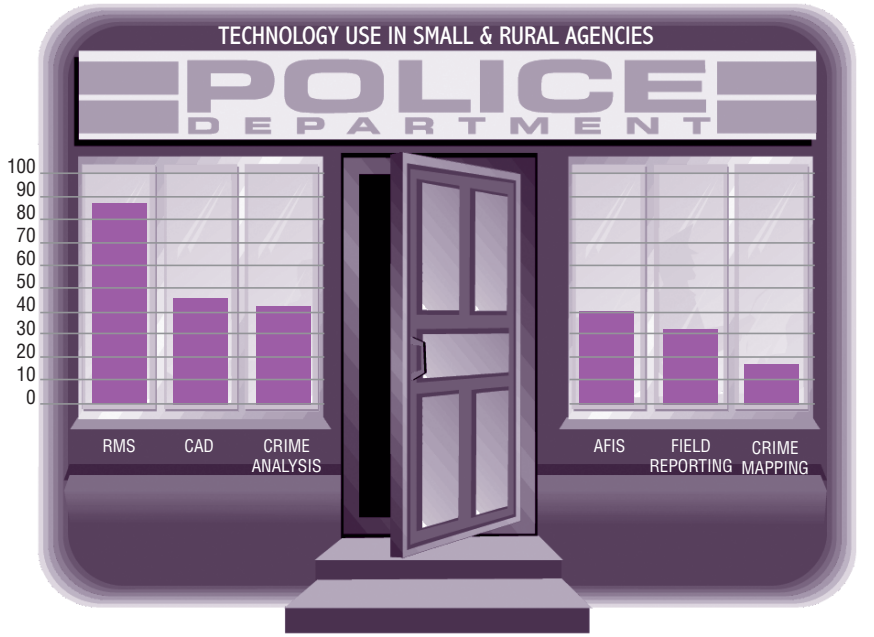
We think it's important to point out that we have made no assumptions about the technical skill set of the reader. In countless instances, SEARCH has learned many lessons in IT usage from the thousands of small and rural law enforcement professionals who are amazingly adept at "making do" with limited resources.

One particular example comes to mind when the author was approached at a conference in 2001 by a rural police officer from Kansas who proudly demonstrated how he was able to implement an 802.11b network over a 10-square-mile area. Following the snickers and quiet remarks (perhaps because his colleagues hadn't yet heard the term "Wi-Fi"), he drew a quick and elaborate diagram that demonstrated a broadband wide area network (WAN) installed on high-tension power lines throughout a rural community with a price tag of under $7,500. The laughter quickly stopped.

...About Your Project

In a survey conducted in 2002 by the National Institute of Justice Office of Science and Technology,[4] small and rural agencies reported the following IT usage (by percentage):

[4] The National Institute of Justice (NIJ) is the research, development, and evaluation agency of the U.S. Department of Justice. For additional information see **http://www.ojp.usdoj.gov/nij/**.



Our experience, coupled with this insightful survey, demonstrates that small and rural agencies are implementing a diverse range of IT, from CAD to crime mapping. Therefore, we have made no assumptions about the type of IT initiative you are undertaking. This Guide is as useful for planning and implementing a new Automated Fingerprint Identification System (AFIS) as it is for implementing a new RMS.

How this Guide is Organized

This Guide is organized into four parts that reflect the major components of any IT endeavor:

Part I	Preliminary Project Planning
Part II	Creating a Project Plan
Part III	Acquiring the Technology
Part IV	Implementing and Maintaining the Technology

We know that most people skip to the part that they are most interested in reading. While this is inevitable, we encourage you to spend the time to read this Guide in its entirety (it's not that long!), and be sure that you have covered all of the important points. Readers of the previous Tech Guide have reported that they found value in using the entire Guide as a benchmarking tool; that is, they looked at each component in the Guide, compared it to how they undertook previous project tasks, and then sought to "fill in the gaps," or revisit certain project phases to make improvements.

We have written this Tech Guide as a realistic aid for agencies working with minimal personnel and minimal financing. Rather than simply rephrase the original Tech Guide material, we have sought to define the minimum requirements necessary for a successful small and rural IT endeavor. Naturally, there are some instances where we will refer the reader back to the original Tech Guide for details on how to conduct certain exercises, such as holding a focus group or preparing budget materials. Like the original, we have kept the four "Ws" at the beginning of each chapter. The four "Ws" address: **What** is it? **Why** do it? **Who** is involved? and **When** should you do it?

Lastly, we've added a new and powerful resource—a Tech Guide Internet Webpage (**http://www.search.org/programs/safety/tech-guide.asp**) that offers many valuable templates and references. Our hope is to prevent those of you with limited resources from wasting your valuable time (and money) reinventing the wheel. The web site includes a sample project plan, request for proposals, acceptance test plans, and many hyperlinks to relevant project management and technology resources. If you are reading this document online, click on the Tech Guide icon for handy access to specific page references in the original Tech Guide.

Definition of Icons

Throughout this Guide, icons are used to draw your attention to important concepts, ideas, reference material, and, in some cases, warnings. Below are the icons and what they represent:

Original Tech Guide Reference

The "parent" Tech Guide contains many useful tools, charts, and instructions for conducting various tasks. When you see this icon, you will be directed to a specific page, or range of pages, in the original Tech Guide.

Stop Sign

When you see a stop sign icon, pay particular attention, as it will indicate where others have encountered trouble in their projects. The stop sign indicates pitfalls to avoid.

Grant Requirements

Be accountable to your grants. This icon will alert you when grant requirements may come into play.

Regional

An increasing number of IT efforts involve more than one agency and jurisdiction. This icon symbolizes multijurisdictional and regional efforts. When you see it, it will provide special advice for dealing with the unique nature of regional IT projects.

Tips

If we've heard or know of shortcuts or have useful ideas on how to tackle a particular issue, we'll use this icon to let you know.

Web Resource

Whenever you see this icon, we have presented information that may be accessible via the Internet.

Four Facts about Small and Rural Police Agency IT Projects

FACT #1
You are not alone.

FACT #2
The role of technology in small and rural agencies is on the rise.

FACT #3
The keys to successful law enforcement technology projects apply to all police agencies, regardless of size.

FACT #4
Implementing IT successfully can be challenging!

Four Facts about Small and Rural Police Agency IT Projects

Fact #1

You are not alone.

There are nearly 13,000 local police agencies in the U.S., and more than 11,000 of these, or 89.5%, employ fewer than 50 sworn officers.[5] When you consider there are thousands of law enforcement IT initiatives currently under way, you quickly realize that ***"you are not alone."***

Law enforcement has been employing the use of technology for decades. Statistics indicate that small and rural agencies are the last to undertake technology acquisition projects (consider that less than half of the agencies surveyed by the National Institute of Justice (NIJ) reported the use of a CAD system). While technology may be slow to appear in our small and rural agencies, the good news is that a great many resources have been developed. Small and rural agencies are the beneficiaries of many "lessons learned" in implementing law enforcement technology.

Beyond self-help resources (such as publications) and help from fellow law enforcement colleagues, there are other means of assistance available to you, including no-cost technical assistance provided by organizations like SEARCH,[6] NLECTC,[7] and RULETC.[8] Each of these organizations is capable of providing human and technical resources to small and rural agencies seeking assistance with their technology-related initiatives.

---

[5] *Supra* note 3.

[6] SEARCH, The National Consortium for Justice Information and Statistics. See **http://www.search.org/services/ta/**.

[7] The National Law Enforcement and Corrections Technology Center. See **http://www.nlectc.org/**.

[8] The Rural Law Enforcement Technology Center. See **http://www.nlectc.org/ruletc/**.

Fact #2

The role of technology in small and rural agencies is on the rise.

Officers of small and rural law enforcement agencies are exposed to the same demands for information as those of larger agencies. The tools and resources afforded by modern police technology are as vital to rural communities as they are to urban centers. Ironically, one could argue that rural and small agencies have a greater need for IT resources than larger cities, which are often equipped with a large support staff to address critical issues such as deployment management, report processing, crime analysis, and justice-wide integration.

In addition to assisting with ongoing officer safety concerns, local law enforcement's role in the context of integrated justice is dramatically increasing, placing pressure on small and rural agencies to deploy local records management systems. Integrated justice solutions rely heavily upon the degree of information captured and shared at the local level. Local law enforcement often possesses vital information on people, places, vehicles, and property, yet rarely shares that information with their fellow law enforcement partners. With a renewed emphasis on sharing information across the law enforcement community, small and rural agencies are being invited (and in some cases mandated!) to participate in information sharing initiatives like never before. Therefore, creating and maintaining an automated and accessible database of information is becoming increasingly vital.

Fact #3

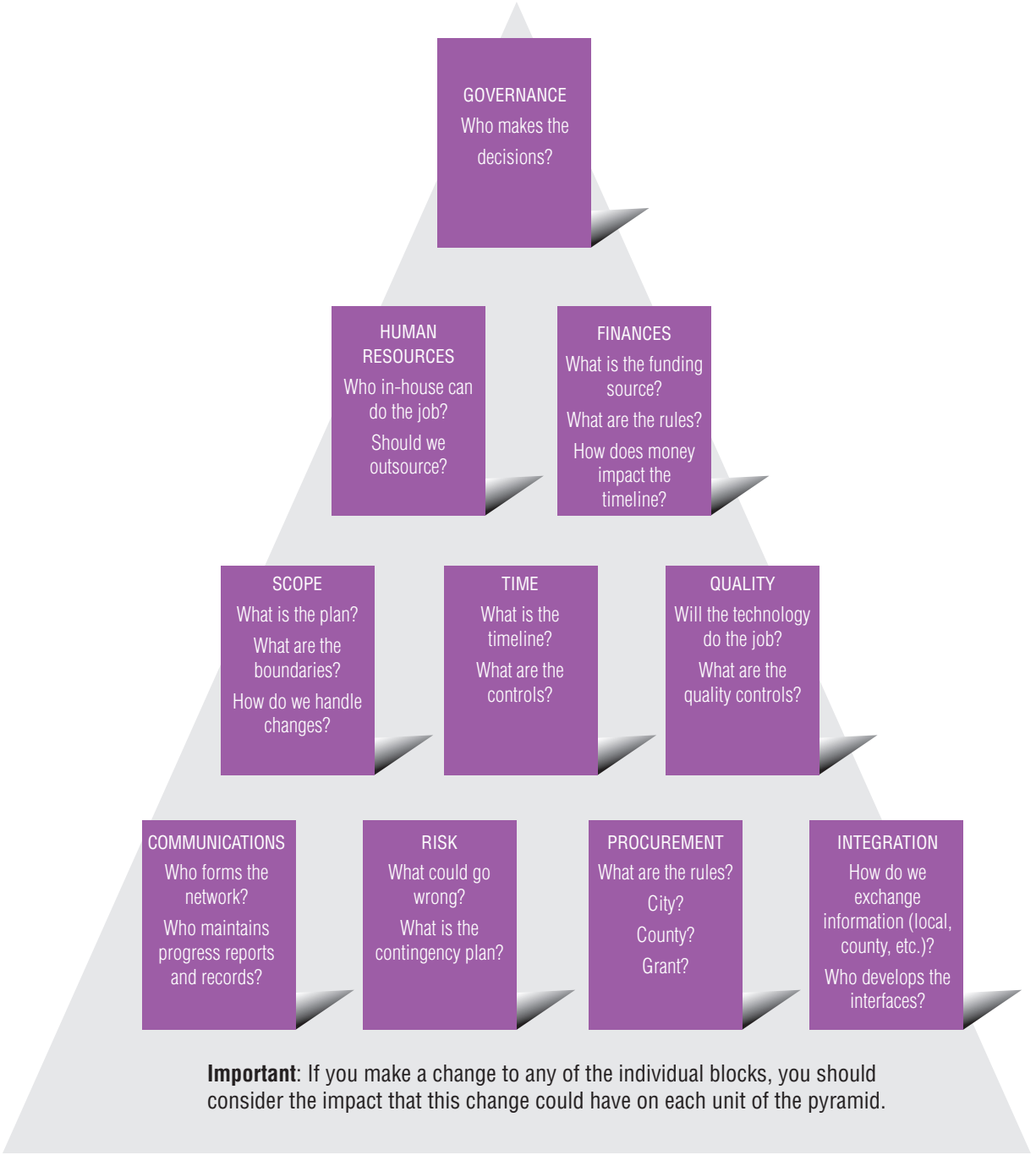
The keys to successful law enforcement technology projects apply to all police agencies, regardless of size.

With respect to the keys to successful law enforcement IT initiatives, the size of the agency doesn't matter! SEARCH has worked with agencies of all sizes throughout the country, and has found the following 10 keys to successful law enforcement technology initiatives to be universally applicable:

1. **Governance:** Successful projects start with governance, or a "project chain of command." This is an agency's first step when starting an IT project, as it defines who has decision-making authority. Even in initiatives where only one person is managing the project, he/she probably reports to elected officials or the community at large; thus, defining who has this authority is an important first step.

2. **Human Resources:** *Take a look around!* Project workers must possess the right combination of skills—people, organization, and technical. All agencies undertaking IT initiatives must address this question honestly.
3. **Financial Resources:** Predicting costs and closely controlling them over time is necessary for a project to be a success.
4. **Scope:** Successful initiatives define a project's scope and maintain watch and control over all related changes, avoiding "scope creep."
5. **Time:** Like cost and scope, project duration is predictable, and can be managed during the life of the initiative. Because a project's timeline is permanently married to the cost and scope, any change will impact all three!
6. **Quality:** Agencies of all sizes must consider how to gauge the quality of the technology they have purchased. The fundamental question pertaining to quality is, *"Is the technology doing what we expected it to do?"*
7. **Communicate:** Simply informing people (co-workers and outsiders) about the status of a project can go a long way toward facilitating buy-in and maintaining interest in that project. It may seem like a "nice-to-do," or perhaps an option, but the costs of failing to keep people informed can be high.
8. **Risk:** Brainstorming to think of what could possibly go wrong with the project, and how to respond if anything actually does go wrong, is important.
9. **Procurement:** When purchasing technology, you have to do it *"the right way,"* by following your agency's procurement procedures. Doing so will help to ensure a fair and competitive process that is defensible to your internal and external stakeholders.
10. **Integration:** Agencies that think about how their technology might be useful to others (as well as to their own local systems) are more likely to be successful in the long term because the longevity of their technology is greater—and who wants to do this more often than they have to?

In the original Tech Guide, we identified these 10 keys to a successful IT initiative by blending our experience with law enforcement agencies with research compiled by The Standish Group's survey of hundreds of public and private organizations relative to their experiences with implementing IT (the resulting report was titled *The CHAOS Report*). For more information on The Standish Group's findings, refer to Page 11 of the original Tech Guide.



Important: If you make a change to any of the individual blocks, you should consider the impact that this change could have on each unit of the pyramid.

Fact #4

Implementing IT successfully can be challenging!

We've all heard the story about the police agency that spent a million dollars on a new system but never turned the thing on! Urban legends in law enforcement IT are many, but often stem from some version of the truth. There are many challenges to implementing IT, including:

Securing the Necessary IT Project Management Training: Since small and rural agencies do not deal with major IT initiatives very often, it doesn't make sense to train all police personnel in the best practices of IT procurement and implementation. As a result, agencies are left to their own imaginations with regard to how best to manage technology projects.

Lengthy, Complex Project Schedules: It's not uncommon for a new CAD or RMS project to require two years, or more, to complete. Because of the duration, technology projects often tap into multiple budget cycles and frequently require assigned personnel to work with their parent organization's finance, legal, purchasing, and technology staff. With multiple lines of authority and multiple budgets, technology initiatives are wrought with opportunities to lose project momentum, control, or money. Consequently, nearly a third of IT projects are cancelled before completion.[9]

Industry Adolescence: Since the late 1970s, more than 88% of the vendors[10] in the police technology industry have either gone out of business or changed their names. As the industry continues to change, no "universal" standards of implementation have evolved, leaving most agencies to start anew with regard to vendor management.

Implementing IT successfully in your small or rural police agency is possible if you follow the principles outlined in this Guide. After working with hundreds of agencies of varying size, we have been able to define the commonalities of successful projects. The rest of this Guide will walk you through the key planning and implementation steps necessary to achieve a successful project in your small or rural agency.

---

[9] *Supra* note 1, at p. 11.

[10] The Warner Group, 1997 internal research on CAD and RMS vendors.

Part I: Preliminary Project Planning

It is always wise to look ahead, but difficult to look farther than you can see.

— Winston Churchill

CHAPTER 1
DETERMINING THE NEED

SHERIFF

Chapter 1: Determining the Need

What Technology projects always start with a need for change; defining the need(s) is where successful projects begin.

Why Projects without a defined need are projects without a purpose. Identifying the project's purpose and the factors that can influence the outcome is imperative.

Who Agency leadership and the people who have identified the need for change.

When Right now! This is the first step that agencies should take when beginning an IT initiative.

The very nature of a small or rural police agency requires that agency personnel operate within a confined pool of human and financial resources. Consequently, technology endeavors that are based upon exploratory research are very rare. Rather, small and rural law enforcement IT projects are likely to find their roots within organizational problems that can best be addressed through the use of technology. Examples include:

- The need to maintain more accurate information on field resources.
- The need for a method to reduce the time necessary to prepare monthly UCR filings.
- The need to search for information faster and more efficiently than using 3" x 5" cards.

These needs are generally identified over a long period of time, leading to multiple workarounds and changes in the way the agency operates. *Occasionally, the workaround produces more complexity and duplicative work than the original problem!* As needs expand, they tend to become more difficult to manage through workarounds. Ultimately, those needs are brought to the attention of agency administrators who must conceive of a solution. And, that's where we begin...

Preliminary Scoping Exercise

Yes, it is true that project management professionals use their own language, and the heading of this section is the perfect example: Preliminary Scoping Exercise is a complicated way of asking, "What are we going to do to satisfy those needs?" A preliminary scoping exercise is meant to address three questions:

1. What are the problems that are causing the needs?
2. What tools exist that can address these needs and what do they cost?
3. How important are the needs in comparison to other things in our organization?

Agencies confronted with such needs must undertake this exercise to determine whether to spend time and money creating a project plan and undertaking a procurement effort.

As a cautionary note, it's also important not to get so specific about the necessary technology that you identify specific vendors or products. Doing so can skew your objectivity, and actually cause you to build a solution around a vendor's design rather than create one of your own.

To conduct a preliminary scoping exercise, you need a little time and some creativity. It starts by talking with the specific people affected by the needs, and asking them for more detail to determine the root cause(s). Remember, you're only seeking *preliminary information* that you can use later.

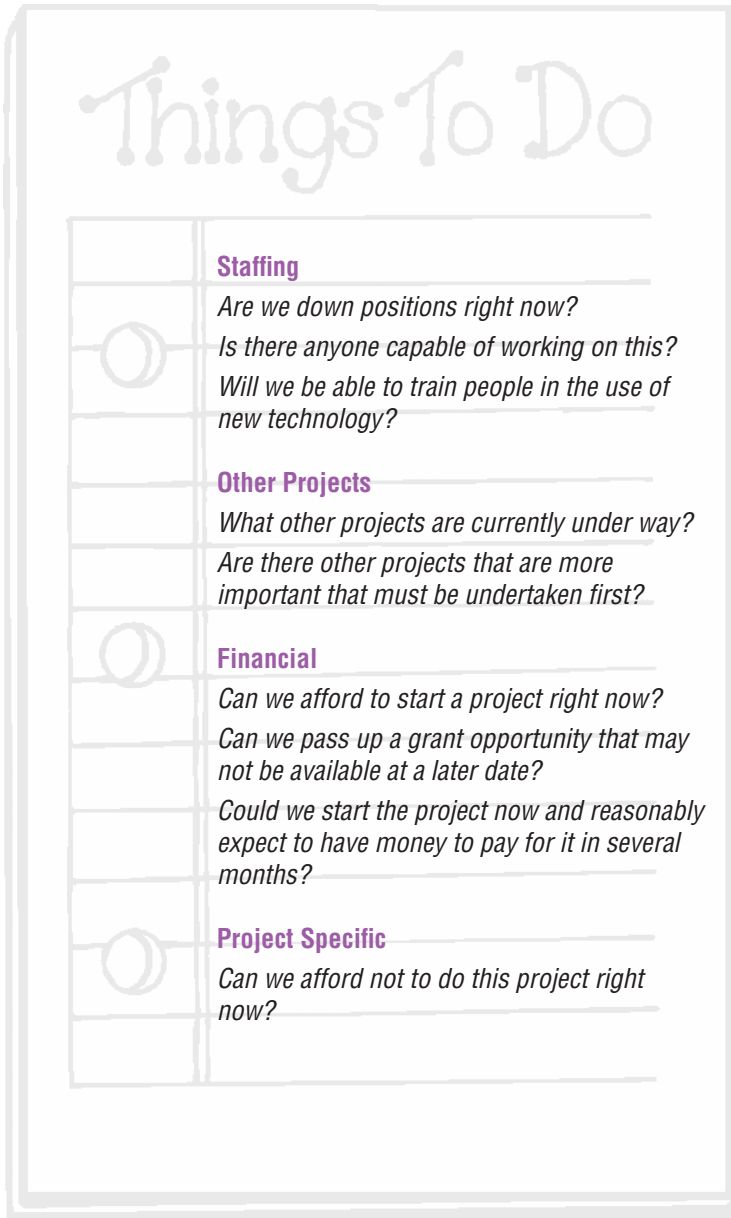
At the same meeting, start to identify the broad categories of equipment or services that might be necessary to fulfill the need(s). For example, if you determine that your agency needs a CAD, write down the major categories (hardware, software, training, project management, etc.) that would need to be provided.

The next step, estimating the costs, can be very tricky. Preliminary cost estimation is subject to a wide range of variables, including: incomplete definitions of what you're seeking, vendors "teasing" you with lowball estimations, or a lack of good comparison material to your requirements. Because you may use the price as a key decision factor, it is critical that you define it as realistically as possible.

Using the preliminary tools as a guideline, attempt to define price ranges and not specific costs (you'll get to that later). Your task is to determine the approximate range of pricing for the tools you might be seeking. You can do this in two ways:

- Contact outside agencies that have recently undertaken an initiative that is similar to your own in terms of scope and budget and ask them what they paid. This is probably the best barometer for gauging preliminary costs.
- Contact vendors that sell the tools you are looking for and ask them for price ranges. They'll be willing to give you this information, but be sure to ask them for realistic estimates, not just enticement costs.

Now take a broad look at the various issues that are currently affecting your agency, and consider whether this is an appropriate time to undertake a technology initiative. Use the following checklist to evaluate whether your agency is ready:



We would be remiss if we didn't acknowledge that law enforcement is often subject to external influences that can push initiatives forward. There are two such factors: Community demands and the fleeting presence of money.

First, law enforcement is a government entity and the public has enormous influence over initiatives moving forward. As representatives of the public, elected officials have a powerful voice in setting agency priorities as well as removing perceived obstacles to project success. Therefore, consulting with locally elected officials is an essential element when conducting a preliminary scoping exercise.

Second, the presence of grant funds is transient. Small and rural agencies are frequently forced to reorder their agency's priorities to take advantage of available funding. Therefore, available grant funds can be the driving force in determining whether to proceed with an initiative (particularly when your agency has accepted a grant award before conducting any type of project planning).

Once you have carefully considered these issues, your agency must reach a decision to proceed with spending time and money on planning for a successful technology endeavor. By the time you have finished this exercise, you should know the following:

- The specific root problem or opportunity behind the "need."
- The potential tools needed to address the problem.
- A range of costs for implementing the proposed tool(s).
- Whether now is the right time to start planning for a technology project.

Assuming that your agency has determined that the problem must be solved now and has identified potential tools and estimated costs, it's time to conduct a more in-depth analysis of the needs.

Conducting a Needs Analysis

Conducting a thoughtful needs analysis is an important element of any successful IT initiative. You'll notice the original Tech Guide icon to the left, which refers you to Chapter 5 – Determining Stakeholder and User Needs. Beyond those instructions, we recognize that for some small and rural agencies, the project managers may be the only persons available to contemplate the needs.

Before you dismiss this step, just consider this: How do you get somewhere without knowing where you're starting? A needs analysis takes a few hours of time, but is critical because it defines where you are today and can be used for charting a course toward improvement. To run a "one-person needs analysis," ask yourself the following:

- **What are your agency's current business processes?**
  What is a business process? It's just a description of the things that you do on a daily basis, such as writing citations or arresting criminals. Each of the things you do each day is a business process. It's important to try and define them so that later you can compare the way you do business with the technology tools that exist to help you do it faster, more accurately, better, or just plain easier!

- **What technology does your agency have in place today?**
  When you conduct a needs analysis, you must consider what you have today (so that you're not merely replacing technology). Include hardware, software, desktop devices, mobile data devices (laptops, fixed devices, etc.), interfaces and any wireless infrastructure that your agency may be using (e.g., cellular-provided data communications).

- **How does your agency use its current technology to accomplish business objectives?**
  Once you've defined the first two elements (What are our business processes and what technology do we have?), you can easily compare them, seeking to determine how your agency uses the technology that it currently possesses in fulfilling the business processes.

- **Are there opportunities for improvement with and without the use of technology?**
  This one takes a little time and thought! You must consider how you could do things more effectively or efficiently with the technology that you currently have, as well as consider how new technology could help improve business processes (you already have a framework in place from the preliminary scoping exercise).

Write down the answers to these questions and you've got yourself a needs analysis!

Remember Grant Compliance

We realize that many small and rural agency IT initiatives are funded by grants. Before your project gets too far under way, it's important that you fully understand the requirements of the grant: both financial and with respect to fulfilling other grant-specific requirements. As part of your initial project planning tasks, be sure to incorporate any grant-related elements into the needs analysis.

We have assembled some "required reading" and Web resources to help you manage your grants effectively. Chapter 19 of the original Tech Guide will guide you through the specific elements of managing a grant, while the SEARCH web site— **http://www.search.org/programs/safety/tech-guide.asp**—has several links to important grant management resources.

CHAPTER 2
LOOKING WITHIN

SHERIFF

Chapter 2:
Looking Within

What An internal assessment of available human and financial resources.

Why An absence of available people and/or money will result in a failed project, so sizing up your resources early in the project can help thwart potential problems.

Who Decision makers who can objectively assess employee availability and skill sets and who have access to budget materials.

When Once initial tasks and budget information have been defined.

Human and financial resources are scarce in all police agencies, regardless of size. But in small and rural agencies, the impact of a shortage of people and money is far greater. Consequently, before undertaking a technology endeavor, you must honestly and thoroughly evaluate your available personnel and financial resources.

Available People

When your human resource pool is small, your decision-making structure may consist of as few as one person who serves in multiple project-related roles (beyond their normal assignments). While some people are quite capable of multitasking, very few are capable of effectively managing all aspects of a technology initiative successfully.

A successful project demands adequate staffing levels, and the following roles are imperative for most projects (in order of importance):

1. **Project Manager:** The person at the center of the technology project, the Project Manager, is responsible for all project-related activity (including all tasks, deliverables, communications, and vendor management). For a comprehensive description of a Project Manager's roles and responsibilities, see Page 44 of the original Tech Guide.

   As you look within and consider which people will fill each role, it is absolutely critical that you give substantial thought to the skills and availability of the potential Project Manager. Projects that are managed "part-time" or by people who lack project management skills will almost certainly fail.

Outsourcing project management is increasingly popular. External project managers, or consultants, can be hired to manage the initiative, but remember: External assistance does not alleviate your agency from its responsibility to take ownership of the initiative. We've seen and heard from agencies whose projects get away from them because they've mistakenly construed hiring external project personnel as "let someone else worry about it." Then, months down the line, they are shocked into reality when the project has barely progressed, has gone into a different direction than planned, or has skyrocketed in cost.

2. **Executive Sponsor:** Typically the Chief or Sheriff, this person has the ultimate decision-making authority and provides project leadership and momentum.

   The executive sponsor role is not a full-time assignment. Rather, the executive sponsor is typically brought into the project on a regular basis (perhaps monthly) to receive updates, and provide feedback on key project milestones. If your Chief or Sheriff cannot serve in this capacity, consider others who have the authority to make decisions that impact the entire agency and have budgetary authority.

3. **Subject Experts (Steering Committee Members):** If your project involves employees from a specific area within your agency (such as dispatch, or perhaps field operations), you should identify someone within that unit—preferably a supervisor—who will be able to participate in some capacity during the project. We suggest that these "subject experts" serve on a Steering Committee, which is a small group of people who help with decision making and project oversight. While not full-time, these people need to be able to attend occasional meetings, make decisions about which technology tool would best suit their employees, and, ideally, could assign people who work for them to participate in the project as well.

Lastly, be sure to remember that technology requires ongoing human support! All technology requires maintenance in order to continue operations, so be sure to identify a technology support person who would be responsible for the technical elements of the project, including hardware and software design, database management, and first-tier technical support.

Available Financing

Following your preliminary scoping exercise, you should have an estimated range of costs. Using that information, your next step will be to determine which funding sources to draw upon.

There are many methods for financing technology initiatives and, naturally, your local agency's parent organization (City or County) will probably dictate the best method. However, walking into the finance office with some ideas can't hurt! Here are some of the more common approaches:

Bonding: One form of financing government technology is with the use of municipal bonds. Instead of getting a loan through a bank, government looks to the public to purchase bonds, the revenue of which may be used for capital improvement projects. Bonding is a form of a loan, which the agency is ultimately required to pay back (with interest to the people who bought the bonds in the first place). Therefore, it requires several approvals and takes months to approve.

Special Assessment Taxes: As the name implies, taxes can be levied by government agencies for specific purposes. A very common tax is a "911" tax, which uses the revenue to pay for upgrades to dispatch and telephony equipment.

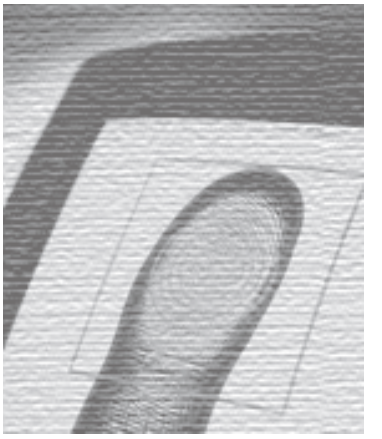
Remember to plan for the long haul! While you may find funding for initial costs, you must remember to identify the source of recurring costs as well. In particular, agencies that use grant funds to seed their projects are often left with large unanticipated bills in the years following implementation that cannot be paid for with grant funds.

Leasing: Select vendors and consultants will permit clients to lease their hardware, software, and services either through an internal finance program (wherein you make monthly payments with interest—typically at 1%), or through a financial corporation, which may charge a higher interest rate, but will offer more flexible financing options.

Cooperative Purchase Agreements: By partnering with other agencies, individual agency costs can be reduced, thus making technology more affordable.

Grants: Most agencies are familiar with applying for, and receiving, grant funding. Typically, grants have some type of "social ill" that must be cured as a consequence of accepting the award. Additionally, many technology grants require local-agency matching funds of a predetermined percentage (an average matching fund percentage is 25%).

Regardless of the chosen option, determining your finance approach early is critical, as some options require many months of approvals and rely upon decisions made by external parties. Before proceeding to the next steps, you must leverage these financing options to determine your agency's financial limitations. In other words, how much can you spend—both initially and over time?



CHAPTER 3
DEFINING THE ALTERNATIVES

SHERIFF

Chapter 3:
Defining the Alternatives

What Considering your options with regard to how best to leverage your people and money to fulfill the identified need(s).

Why To ensure that your project approach is based upon careful consideration of all options, and is closely aligned with realistic estimates of what your people can accomplish and what your dollars can buy.

Who Decision makers and the Project Manager.

When After determining what you need and what you have (in terms of people and money) to work with, you can begin analyzing your alternatives.

By now, you should have identified the following:

- A preliminary scope and budget.
- An idea of who will work on the project.
- Options for financing the project.
- Various solutions that can address your agency's needs.

In advance of creating a project plan, you must define the various options that are available to you, given the confines defined in the above list. Ultimately, you will be required to determine which option is best for your agency, in consideration of available people and money.

A good business case will tell the agency when it is better to upgrade or buy new by comparing the relative costs of the two alternatives against common requirements.

Creating Alternatives to Consider

While you will likely develop your own alternatives for consideration, we have prepared the following approaches, which are the most common. For each alternative, we have provided an "at-a-glance" ranking of cost and people necessary for success using the following scale:

- 🧍 - Few agency personnel
- 🧍🧍 - Full-time project management, significant agency resources
- 🧍🧍🧍 - Full-time project management, heavy vendor reliance

$ - Inexpensive, local budget financing
$ $ - Costly initiative, may require grant funding or other external financing
$ $ $ - Very costly, requires major financial investment

Upgrade Existing Technology (🧍 + $) vs. Buy New Technology (🧍🧍 + $ $)

If the agency's needs are based upon antiquated technology, they may be addressed by replacing the existing products. Most agencies in this position must evaluate the cost and relative benefit of upgrading to a new version of the technology in comparison to total replacement with a new vendor solution. This alternative generally requires the agency to consider the following three criteria:

1. The changes in functionality yielded by the option.
2. The cost of the option.
3. The time necessary to implement the option.

Buy (🧍🧍 + $ $) vs. Build (🧍🧍🧍 + $ $ $)

In the exploration for new technology, occasionally agencies will find that commercially available products fail to meet their demands. Consequently, they decide to create their own technology from scratch (referred to as a "build"). We rarely encounter custom-built technology in small and rural agencies because the cost is staggering and the resource demands are immense. For an in-depth look at the considerations of building vs. buying, refer to Page 104 of the original Tech Guide.

Partnering with Regional (County or State) Systems (🧍 + $)

An increasingly common approach in this era of integrated justice, this approach tends to be very affordable and requires a minimal commitment in terms of personnel. As an added advantage, participating agencies can take advantage of leveraging vendor resources and information sharing.

Coalition of Small and Rural Agencies (+ $ $)

Similar to partnering with regional partners, two or more small agencies can partner to procure and implement new technology. Again, by leveraging financial and human resources, greater functionality and services can be afforded.

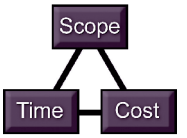
Based upon your available staff and money, you are now in the position to move to the next step, creating a project plan that will serve as your roadmap toward implementing the technology.

Part I Reality Check

All that information and it's only the beginning! The first three chapters were dedicated toward helping you construct a stable foundation for your project by determining three key components: the need, the available resources, and the alternatives.

While this advice is certain to help make any project more successful, some small or rural agencies might think that these steps are more than what is required for their initiative, *and they may be correct!*

We understand that all projects are uniquely dependent on the successful balance of three key elements: scope, time, and money. The degree of attention you pay to the planning process is often calibrated by the size of those three project ingredients.



Let's compare two small agency technology initiatives, focusing on the level of project planning necessary in each example. First, some background:

	Smallville	Ruralville
Agency Size	20 Officers	6 Officers
Scope	The agency has received a grant for improving crime analysis.	The City's general fund includes an earmark of $25,000 in discretionary law enforcement technology spending.
Time	Less than one year due to an expiration of grant funds.	Funds must be spent within one budget year or be forfeited to the general fund.
Money	$175,000	$25,000

Determining the Need

Smallville: Before spending a cent on crime analysis technology, Smallville needs to better understand what it has today and what limitations are fostering the need for improvement. Smallville certainly needs to conduct a preliminary scoping exercise, as well as a needs analysis.

Ruralville: Ruralville is in a different situation because its funds aren't tied to any particular cause. Therefore, a needs analysis is paramount (and the sooner, the better to avoid throwing money at technology lest it be dropped back into the general fund!). But conducting the process will be far simpler with so few employees. One would imagine that the Chief or Sheriff could simply hold a meeting with all of the employees present, and ask about any limitations that could be improved or addressed through technology.

Looking Within

Smallville: While the money has already been identified, the people working on spending it have not. After completing the needs analysis, Smallville must determine who will lead, manage, and participate in the initiative.

Ruralville: Again, the money has been identified, but the "who" has not. Like Smallville, Ruralville must determine who is going to be working on the initiative.

Defining the Alternatives

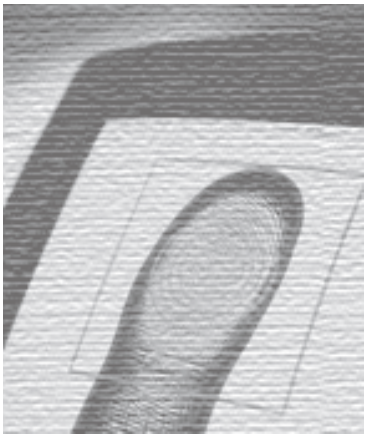
Depending on the outcome of the scoping exercise and the available human resources, both agencies must define their alternatives, giving consideration to the following technology options outlined in Chapter 3: Upgrade, buy, build, partner, form a coalition.

None of the recommendations in Part I require outlandish time or budget demands on agencies. For the most part, they are rooted in common sense, seeking to answer fundamental questions like: *What do we have? What do we need?* and *What can we afford?* In Part II, we'll formalize the answers to these questions into a written project plan that will act as the blueprint for your technology project.

Part II: Creating a Project Plan

A good plan today is better than a perfect plan tomorrow.

— General George S. Patton



CHAPTER 4
PROJECT PLAN COMPONENTS

SHERIFF

Chapter 4:
Project Plan Components

What The written blueprint for your technology initiative.

Why Like a map and directions, the project plan guides participants through their endeavor, identifying the current location, as well as the destination. Projects without a plan drift aimlessly.

Who Virtually everyone impacted by the technology will play a role in crafting, and using, the project plan.

When Once you've decided to move forward with a technology initiative, the project plan must be crafted.

Once you have finished the preliminary scoping exercise, you'll be ready to put pen to paper and create a project blueprint—a thoughtful and detailed plan that will provide guidance throughout the initiative. This chapter will help you to create an initial project plan, recognizing that the document will change, over time, as your project gets underway. Updating the project plan is normal, and should be done regularly or when conditions warrant.

Despite their value, creating a project plan from scratch can be time-consuming and difficult. To help equip your project with this essential resource, we have created a two-part project plan toolset that provides you with a template (on the Tech Guide project Webpage at **http://www.search.org/programs/safety/tech-guide.asp**), as well as instructions in this chapter on how to tailor the plan to meet the unique requirements of your initiative.

The Purpose of a Project Plan

The project plan is often referred to as the project's blueprint or roadmap, designed to keep your team on a clear path toward success. Conversely, a project team without a plan is like a group of moths, flocking to the brightest flame—only to be burned!

A project plan provides a definition of the project, including the project's goals and objectives. Additionally, the plan serves as an agreement between the key project participants, including the project's sponsor, the Steering Committee, the Project Manager, and other personnel associated with and/or affected by the project. More specifically, the plan defines the following:

- Project purpose
- Business and project goals and objectives
- Scope and expectations
- Roles and responsibilities
- Assumptions and constraints
- Project management approach
- Ground rules for the project
- Project budget
- Project timeline
- The conceptual design of new technology

As a small or rural agency representative, you should consider the following key components for your project plan.

> *"The size of police IT project plans are like phone books: The bigger the city, the bigger the project plan."*
>
> **— Captain Woody Sandy**
> North Carolina Highway Patrol

Project Background

As the introductory section of your project plan, this section defines the work that has been accomplished to date, including your findings from the preliminary scoping exercise. It is very helpful for establishing the legacy of the project and for explaining the background of the project to people outside your agency (elected officials, vendors, etc.).

Project Approach

Complex projects are typically broken down into phases, or milestones. This section of the plan defines the various phases that you expect the project to require. As an example, many project plans break down the initiative into the following phases:

Phase I:	Project Plan Development
Phase II:	Development of Procurement Documents
Phase III:	Procurement Process
Phase IV:	Evaluation and Selection of Vendor
Phase V:	Contract Development
Phase VI:	Implementation

The last phase, Implementation, is usually broken down into multiple phases as well. Typically, you would work with your vendor to define the specific tasks that would be required in this phase.

Make your objectives specific and measurable—you may one day be asked to "prove" that you accomplished these objectives through some form of measurement.

Project Goals and Objectives

Every project includes certain goals and objectives that the team hopes to attain during the life cycle of the initiative. Typically, they are linked to solving the specific problems that led to the need for change in the first place. If you rely upon your findings in the preliminary scoping exercise, you can simply cut and paste them into this section of the plan.

Examples of a few common goals and objectives include:

The business goals and objectives for this project will focus on implementing technology that:

- Improves officer and citizen safety
- Facilitates internal and external information sharing among the participating agencies
- Enhances the ability and effectiveness of staff members to perform their jobs
- Facilitates coordinated crime prevention and reduction
- Provides high levels of data security
- Provides an open, flexible, reliable technology base for the future
- Facilitates the electronic capture of data at its source
- Eliminates redundant data entry throughout the organization

Be sure to add any grant-related objectives to your list of goals/objectives.

Project Scope Definition

The project's scope must be concretely defined in order to prevent scope creep. This section of your project plan will define both what is in the scope, as well as what is excluded. Be sure to consider the relationship between your scope, your timeline, and the project costs, as they are all permanently linked together. Any changes to the scope will impact both the timeline as well as the project's cost. For a closer examination of scope definition, refer to the original Tech Guide, Page 121.

Project Budget

Upon completion of the preliminary scoping exercise, you had completed a preliminary project budget that identified a range of costs for the technology. Now you must expand on the cost detail, and include all potential costs, both internal and external. Your project's budget should include, at a minimum, estimations in the following categories:

- Hardware
- Software
- Third-party Software
- Operating Expenses
- Staff Costs (Project Management, Implementation, Installation, Training, Support)

Many agencies are tempted to allow their vendors to prepare their budgets, without carefully reviewing the content. Resist this temptation as you are responsible for the project's budget, not the vendor.

- Training
- Support Contracts (Maintenance)
- External Assistance (Consultants)

To develop a detailed budget, you should refer to the original Tech Guide, Chapter 11.

Initial Risk Assessment

A risk assessment attempts to identify, characterize, prioritize, and document your solution to risks that can be identified prior to the start of the project. Despite their value, risk assessments are an often-overlooked element of project plans. Resist the temptation to skip this step! A risk assessment can serve as your "emergency action plan," defining how you and your agency should react to events that negatively impact your project.

Assumptions About the Project

This small section of the project plan provides you and the project participants with a description of the agreed-upon ground rules that will govern the project. Assumptions are often developed by the agency's management, and serve as "rules to live by" when managing a project. Here are a few examples:

- Employees are willing to change business operations to take advantage of the functionality offered by the new technology.
- Management will ensure that project team members are available as needed to complete project tasks and objectives.
- The decision maker(s) will participate in the timely approval of project deliverables.

Project Constraints

If there are any project barriers, you would want to define them in this section. For example, limited funding or available personnel are often considered natural project barriers.

Project Timeline

Developing an estimated project timeline is one of the most important project tasks. The results of your efforts will be a timeline that others will use to measure the project's momentum and progress against.

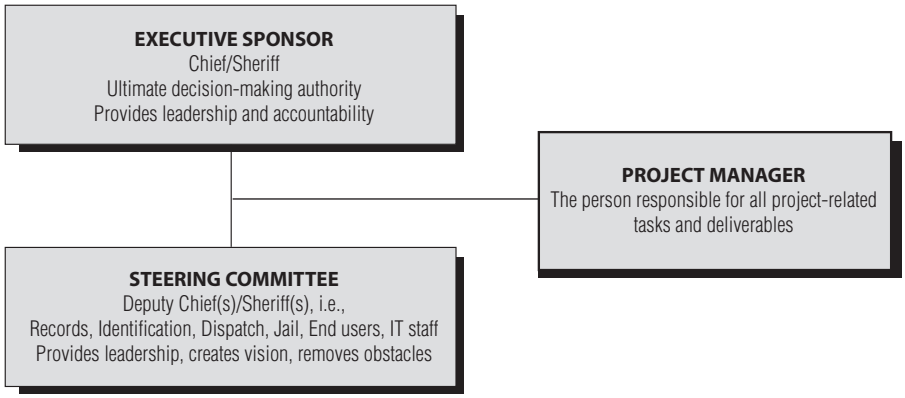
Developing the timeline is a straightforward exercise in defining the project's activities and the sequence of their occurrence. Naturally, you'll have to take into consideration the duration of each activity, which can often be influenced by the number of people

available to undertake a task. If you are managing the project alone, give yourself adequate time, and don't forget to include a margin of error into the timeline. The standard "cushion" of time is 15%, so if your task was scheduled to last for 14 days, you should schedule 16 days, *just in case*.

If you have a software tool available to help you, it will greatly reduce the time necessary to create and edit the timeline. These tools allow you to create a timeline that links all of the tasks together. Thus, if you make a change to any one task, the software will automatically move the other task dates accordingly (big time saver!). To see a sample timeline, look at Page 133 of the original Tech Guide.

Roles and Responsibilities of Participants

It is important to define the roles, responsibilities, and decision-making authority of all the people involved in the project. Perhaps the most important aspect of any project is defining the project's hierarchy, or "governance." Even the smallest of agencies is capable of preparing a project governance for its initiative. Consider the following example:



For more tips on establishing a decision-making structure, refer to Page 24 of the original Tech Guide.

You may recall that in Part I, we identified these key roles (Executive Sponsor, Project Manager, and Steering Committee members). The graphic on Page 49 shows the reporting relationship between these three participant types. The structure ensures that all participants understand their roles—and the roles of others.

The following chart supplements this graphic, and provides greater detail on the roles and responsibilities of each participant.

	Executive Sponsor	Steering Committee	Project Manager
RESPONSIBILITIES	• Ultimate decision maker and tie-breaker • Provides project oversight and guidance • Reviews/approves important project elements	• Commits department resources • Approves major funding and resource allocation strategies, and significant changes to funding/resource allocation • Resolves conflicts and issues • Provides direction to the Project Manager • Reviews project deliverables	• Manages project in accordance with the project plan • Serves as liaison to the Steering Committee • Receives guidance from Steering Committee • Supervises external help • Supervises vendor(s) • Provides overall project direction • Directs/leads team members toward project objectives • Handles problem resolution • Manages the project budget
PARTICIPANT(S)	Typically the Chief or the Sheriff. Requires occasional project involvement, but continuous oversight.	Usually department heads or subject experts. This is a part-time role, perhaps requiring monthly or bi-weekly involvement. For a Steering Committee to be effective, it requires at least two participants; otherwise, these responsibilities should be shifted to the Executive Sponsor.	The most important person in the technology endeavor! Should be available and skilled in managing projects.

Issue Management

The information contained within the project plan will likely change as the project progresses. While change is both certain and required, it is important to note that any changes to the project plan will impact at least one of three critical success factors: Available Time, Available Resources (financial, personnel), or Project Quality. The decision to make modifications to the project plan (including project scope and resources) should be coordinated. As a suggestion, we recommend the following approach:

Step 1: As soon as a change that impacts project scope, schedule, staffing, or spending is identified, the Project Manager will document the issue.

Step 2: The Project Manager will review the change and determine the associated impact to the project and will forward the issue, along with a recommendation, to the Steering Committee for review and decision.

Step 3: Upon receipt, the Steering Committee should reach a consensus opinion on whether to approve, reject, or modify the request based upon the information contained within the project web site, the Project Manager's recommendation, and its own judgment. Should the Steering Committee be unable to reach consensus on the approval or denial of a change, the issue will be forwarded to the Executive Sponsor, with a written summation of the issue for ultimate resolution.

Step 4: If required due to a lack of consensus, the Executive Sponsor shall review the issue(s) and render a final decision on the approval or denial of a change.

Step 5: Following an approval or denial (by the Steering Committee or Executive Sponsor), the Project Manager will notify the original requestor of the action taken. There is no appeal process.

Step 6: If approved, modify original plans, timelines, and budgets to reflect the impact of the approved change.

Communications Plan

In a small or rural agency, having a communications plan may seem like overkill. But, nonetheless, establishing a predetermined meeting date and time is appropriate for distributing information to the project's participants. Also, remember to include a date and time for updating community members who are likely to be interested in the project's progress and current status. If you would like to prepare a more comprehensive communications plan than regularly scheduled meetings, you can learn more in the original Tech Guide on Page 159.

Approvals

There are few things more valuable than a signed approval page on a project plan! Asking your Chief or Sheriff, as well as the project's key participants, to sign the document is a powerful request. By signing, they will assert that they have read the plan and will abide by the content with their full commitment and support.

Part II Reality Check

Let's revisit our two sample agencies, Smallville and Ruralville. You'll recall that their projects were quite different, as well as their available resources. Once again, let's consider whether the suggestions outlined in Part II of this Tech Guide are warranted.

Creating a Project Plan

Smallville: This grant-funded project to improve crime analysis requires a project plan. It is imperative that the agency's assigned Project Manager spend a few hours documenting all of the agency's needs, resources, and options, as identified in Part II of this Tech Guide. Beyond being a key success factor, this is a grant-funded initiative, and the granting agency will almost certainly require a project plan (if not the elected officials who accepted the award).

Ruralville: Once again, Ruralville is in a different position than Smallville. Because their project is a $25,000 discretionary purchase, they are not likely to require a comprehensive project plan to guide them through the process. In fact, it is conceivable that more time could be spent on preparing a project plan than on making the purchase itself!

Nonetheless, it just makes good, practical sense to create a scaled-down project plan that includes the following three components that are easy to document:

- Project scope and objectives
- The names of the people associated with the project, and their respective role(s)
- A budget and approximate timeline (this could be supplied by the vendor)

Armed with a clear definition of the needs, a careful assessment of available human and financial resources, and now a project plan, you're ready to go shopping. In Part III, we'll talk about the best practices in procurement and contracting.

Part III: Acquiring the Technology

Look for your choices, pick the best, then go with it!

— Pat Riley

CHAPTER 5
UNDERSTANDING PROCUREMENT AND CONTRACTING

SHERIFF

Chapter 5: Understanding Procurement and Contracting

What The rules that govern how a small or rural agency may purchase technology, using sound methods and tactics.

Why Because failing to do it the right way results in not only going back to square one, but you can wind up with an undesirable solution or terms and conditions that may lead to failure or cost/timeline overrun.

Who Primarily the agency employees, although you may also need to bring in an attorney and/or a consultant.

When Once you've decided that it's time to buy something.

Do You Need to Procure (Buy) the Technology?

Before you consider purchasing your own technology, be sure to carefully consider the merits of this alternative: small and rural agencies are often able to act as remote, or satellite, clients of a larger agency's technology backbone. For example, if you find that a nearby City, County, or even your State Police, currently uses technology similar to that which you seek, you should evaluate the possibility of using that agency's technology, rather than trying to purchase the same thing on your own. This approach lends itself to far greater buying power, reduced overhead, and effortless integrated justice tools. Additionally, the largest vendors in the industry are not usually interested in supplying technology to small or rural agencies because of reduced profits.

If you elect to partner with a neighboring agency, you will still require some type of written agreement between your agency and the "host agency." Such an agreement should address several elements about the relationship, including: initial costs, recurring costs (for support and maintenance), and what conditions permit the agencies to terminate the relationship with each other and with the selected vendor.

One final piece of advice regarding interagency agreements: Be certain that your agency can participate as a "stand alone" entity. This will provide you with the ability to create agency-specific reports and forms.

Understanding the Bidding Process

Assuming you've decided to purchase your own technology, it's time for you to review the rules of government technology procurement (a compact way of saying "the way we buy things").

For an in-depth discussion on procurement, refer to Chapter 14 in the original Tech Guide.

Police are accustomed to making purchases. You buy cars, weapons, protective gear, office supplies, and probably computers. For each of those purchases, you likely have a supplier who was chosen by some process. You'll note that the complexity of the process probably increased with the cost of the item being purchased. For example, deciding how to buy a box of pencils is a lot easier than deciding how to buy a new Ford. So, imagine the complexity around buying something like a new CAD system, with a cost that is 20 times that of a new police car.

Technology procurement is complex because all police agencies (regardless of size) are averse to the possibility of losing large amounts of time and money as a result of a failed procurement. Such losses can result from both out-of-pocket costs to a vendor, as well as internal costs associated with spending personnel resources on something that is ultimately lost.

In the past three decades, thousands of law enforcement technology projects have been undertaken and the lessons learned from those efforts (most good, but some very bad) have translated into "rules of procurement." They are designed to shield you from problems and issues associated with:

Failing to follow local procurement rules: Your parent organization (City or County) has rules that the entire organization must adhere to when making a purchase. Typically, these rules require that you competitively bid anything that costs more than a certain dollar amount (often $25,000). The specific rules are always unique, but usually they require a fair and objective analysis of goods and/or services, with a defined process for making a decision.

Failing to follow grant-required procurement rules: Even if your local organization doesn't have rules of procurement (which is extremely rare), you may still have to employ a competitive bidding process if your project is funded by a grant. The Office of Management and Budget (OMB) is a regulatory agency within the Federal Government that sets policies and procedures for (among many other things) how to make purchases with grant funds. A familiarity with OMB rules will help keep you out of trouble with Federal grants.

The need for government to be fair: Notwithstanding the fine print, as guardians of the public trust and money, you are compelled to be fair about how to make a purchase. We've added this topic here to remind you that the public and elected officials would be

outraged if they discovered that thousands of taxpayer dollars were being squandered due to irresponsible or unfair procurement procedures. They would be equally outraged if they discovered that their law enforcement or other public officials were steering business toward a particular "preferred" vendor.

Vendor protests: Beyond your agency and the public, there are still others watching how you conduct your business. Under freedom of information laws, losing vendors can demand to see the supporting documentation that details how you reached your decision to select the chosen vendor. This process is referred to as a "bid protest" and is usually conducted in the most visible and uncomfortable manner possible with the vendors appealing to elected officials and/or purchasing officials from your parent organization.

Bid protests are typically limited to larger agencies. However, there are no guarantees! With 90% of the marketplace being small and rural agencies, it's only a matter of time before the vendor community begins to scrutinize how all agencies are making their selections.

Choosing a Procurement Approach

There are many tools available for procuring your technology. The most common approaches are defined in substantial detail in the original Tech Guide, starting on Page 176. In summary, they are:

Request for Proposal (RFP): The most common approach, this tool is a document that defines the agency's requirements and asks vendors to propose a solution that is uniquely tailored to the agency's specific request.

Request for Information (RFI): A tool that asks vendors for general information about their software, services, and price ranges. Many agencies use an RFI during their preliminary scoping exercise or as a precursor to issuing an RFP (doing so allows you to narrow the list of vendors that will receive the RFP).

Request for Qualifications (RFQ): Similar to an RFI, the RFQ goes a bit further by defining minimum qualifications that the vendor must adhere to when responding. For example, an RFQ might have a stipulation that requires vendors to maintain a local office during the initiative as a mandatory element of their qualifications. Be prepared to justify minimum qualifications since, by definition, they restrict competition. Unnecessarily restrictive stipulations invite bid protests that can bring a project to a screeching halt.

Invitation to Bid (ITB): Some agencies are required to use this tool by local ordinance. The ITB is a document that defines everything that the agency wants to

purchase (including all goods and services), and sets the contract and price! The vendors are "invited to bid" on the document, in a "take-it-or-leave-it" fashion.

State Contracts: Many states provide "award schedules," wherein they pre-negotiate reasonable rates for vendor goods and services. Typically, local agencies may purchase goods and services directly from vendors on the award schedule, without having to conduct a local competitive procurement process. Naturally, you would want to verify that your City or County allows such a purchase.

Federal grant funding rules may require written formal justification for sole source procurement purchases, regardless of whether the good or service has already been competitively bid under State contract. Proceeding without checking whether such justification is required can have legal and financial consequences. Better to check with your funding source early on in the process.

Sole Source: This tool is used when the agency can demonstrate that only one vendor can supply the specific goods or services necessary to fulfill their requirements.

So, with six tools available, how does a small or rural police agency decide which to use? **The answer always starts with your parent organization's rules of procurement**. Your first stop must be with the person who manages purchases for the City or County; they will provide you with crucial information that will keep you out of trouble, including:

- A limitation on how much you can spend before you have to conduct a competitive procurement.
- Templates that define your agency's rules for conducting a procurement process.
- Local advertising rules that define how you should announce the process in the media *(some agencies must run an ad in a local or regional newspaper, while others must do so in a national publication).*
- Other agency-specific procurement content.

Given the limitations on personnel, money, and time in small and rural agencies, it is likely that you are considering the use of only two of the above listed tools: Sole sourcing or an RFP.

Experience has shown that the majority of small and rural agencies are initially inclined to sole source the award to a specific vendor because it negates the need to conduct a competitive procurement process (which obviously requires valuable time and people). Before making your decision, be certain to carefully examine the strengths and weaknesses of such an approach very carefully. A sole source is generally acceptable in two instances:

1. When the good or service costs less than the maximum dollar amount permitted by your City or County. (Rarely, however, should you use this as the only justification on a sole source.)
2. When purchasing a good or service that can only be supplied by one vendor. Examples include: upgrading the current technology to a vendor's newer product, or buying a laptop that is the only one on the market that can fit in your vehicle's available space.

Pre-RFP Toolkit
The Pre-RFP Toolkit was developed by the Integrated Justice Information Systems (IJIS) Institute and the Industry Working Group (IWG), and at the request of and in partnership with the Justice Information Sharing Professionals (JISP). The Pre-RFP Toolkit provides guidance in several areas critical to pre-procurement planning and readiness assessment. It provides links to key resources, templates, and examples from practitioners and vendors who have gone through the procurement process and have implemented successful justice information sharing systems. To request a copy: **http://www.ijis.org/traction/permalink/Public33**.

A sole source is never acceptable when chosen because it's the easiest way to buy something, because you had good experiences with the vendor in the past year, or because you "heard" they were good. Doing so is likely to be rejected by your City or County, but even if it isn't, the purchase is very likely to be protested by the other vendors that are capable of supplying the same good or service.

Last, you must remember that agencies that are buying the technology with grant funds are required to use the U.S. OMB guidelines (see 28 CFR 66.36) for preparing a sole-source justification. In summary, the guidelines require the following sections: Expertise of the Contractor; Management and Responsiveness; Knowledge of the Engagement; Experience of the Contractor Personnel; Time Constraints; Uniqueness of the Vendor; and Additional Information and Declaration.

Creating a Bid Document

There are two ways to create a bid document: The first is to construct the document from the ground floor up, using original material that is drawn from meetings and focus groups. The second is to start with another agency's bid document and edit it to be specific to your agency's requirements.

Naturally, a document that is created from scratch is going to be very specific and useful for your procurement purposes. However, doing so will likely devour precious time. For example, a basic CAD RFP might require between three and six months to prepare. By contrast, using another agency's CAD RFP as the starting point could reduce the preparation time down to one or two months.

Despite the beneficial time savings, there are a few risks to be aware of when using another document as the starting point. The most common risk is that you may be asking for things that you don't need or want, and you might forget to add requirements that weren't in the base document. Another inherent risk is that you'll be required to conduct some heavy editing, leaving you in the position of adding or deleting material without knowing why it was there in the first place, or how it related to other material in the same document.

If you elect to craft your own procurement tool, we strongly suggest that you carefully read Chapter 14 of the original Tech Guide, starting on Page 173. Conversely, if you elect to start with another agency's RFP tool, we suggest the SEARCH Justice Technology Resource Center (JTRC) at **http://www.search.org/programs/info/JTRC.asp**, which serves as a clearinghouse for any agency or vendor to post procurement tools and information.

Regardless of where you uncover a sample RFP, be sure to include the following five chapters that we outlined in the original Tech Guide:

1. **Project Background:** This section provides the project's history and outlines the technology being sought, from a high level. This section should be fairly easy to prepare if you conducted the preliminary scoping exercise and needs analysis. Most of that work can be cut/pasted into this section.
2. **Rules of Preparation**: This section is where you would insert the language provided by your City or County that covers things like "how to submit a proposal," the date/time of proposal submission, and any other terms and conditions that govern the way a vendor is supposed to respond.
3. **Volumes:** This section should include statistics that will help the vendors to size their proposal (e.g., the number of workstations to be licensed, the number of police cars that you have today, etc.).
4. **Vendor Response:** This is an open-ended section that provides questions that pertain to the vendor's qualifications, experience, proposed solution, and pricing.
5. **Functional Response:** Provides functionality questions that are specific to the type of applications you seek.

Functional Specifications

The Law Enforcement Information Technology Standards Council (LEITSC) Website offers emerging CAD/RMS Standards information: **http://www.leitsc.org/**.

All good bid documents include functional specifications. These are succinct descriptions of the features and functionality that you expect of your new technology. They are important for both you and the vendor because they set the expectations for both parties about the product's functionality. In the procurement phase, functional specifications are included in the bid document, wherein the vendor will tell you whether their solution can address the specification. Later, during the acceptance phase of the project, you will rely upon these same specifications to ensure that the vendor's product is doing what they said it would do.

You can find functional specifications in procurement documents located on the JTRC Website at **http://www.search.org/programs/info/JTRC.asp**. These provide a good idea of what other agencies have found to be critical to their initiatives. The sample documents will have many functional specifications, but you'll need to supplement that material with specifications that are unique to your agency's specific requirements. If so, we suggest you read Page 179 of the original Tech Guide for a how-to primer on creating specifications.

Evaluating and Selecting a Vendor

Remember, once an RFP has been released, vendors will ask questions and you might need to make changes to your RFP! Be sure to require that any questions be submitted in writing, and distribute both your answers and any amendments to all of the known competing vendors.

Regardless of the approach, you must define the process by which you will evaluate the vendor's offering and, ultimately, make a selection. You must do this for two reasons: 1) Because you need to lay out a methodology that explains how you're going to pick a vendor for your own project team's use; and 2) Because doing so will help to avoid a bid protest.

Creating an evaluation and selection approach must be done *before* the RFP is released to the vendors, and your agency must adhere to the approach strictly in order to be protected by the methodology. If you wait to craft the approach until after the bid is released, you might be accused of tailoring the methodology to suit a particular vendor (aka: inviting a bid protest).

Generally, agencies assign a weight of importance to various elements of the vendor's offering, including (at a minimum): the proposal content, the price, information gained during a demonstration of the product, and information regarding references.

Remember to trust, but verify! Make sure that you spend the time necessary to investigate the vendor's references and give serious consideration to visiting those locations in person. You will find that agencies are your best source for real-world, unfiltered information regarding the vendor's performance and pricing.

Overview of the Negotiation Process

Once you have identified a finalist vendor, you'll want to enter into a contract development process with that vendor. In our experience, small and rural agencies are often inclined to agree to a vendor's base agreement in lieu of spending time, and possibly money, on negotiating the most favorable contract. We often hear, "We're too small to negotiate an agreement."

Before starting the contract negotiation process, be sure to ask your legal representative about their experience with negotiating technology contracts (they are very different than most contracts negotiated by municipal attorneys). A good resource is the chart on Page 190 of the original Tech Guide. Confirm that your attorney is familiar with the content and ready to incorporate those topics into your technology vendor agreement. If not, you should consider the use of an outside consultant or legal representative to assist you. While this will cost money, it is nothing in comparison to what failing to incorporate these conditions will cost in the long run!

Regardless of who negotiates the terms and conditions, you will be responsible for developing the Statement of Work (SOW) that defines the specific tasks associated with the contract (see Chapter 15 of the original Tech Guide).

Consider using the vendor's reference list as a source for accessing copies of other agency's agreements (replete with SOWs) as a starting point for your own project.

Everything is negotiable! If you simply sign the vendor's base agreement, you are subject to the most restrictive terms and conditions, while receiving the minimum technology and services possible. Negotiate, negotiate, negotiate!

Contract development takes some time, typically several weeks or a couple of months, depending on your vendor's willingness to negotiate. Remember, the value of a negotiated agreement vastly outweighs the time commitment.

Part III Reality Check

Procurement and contracting mistakes are at the core of nearly every failed technology endeavor. Whether it's a bid protest, or a never-ending vendor relationship problem, it's preventable! No matter how small the initiative, always start with your City or County purchasing agent, and never be afraid to shrewdly negotiate your vendor agreement—remember that you only get what you put down in writing! Now, back to our sample agencies:

Developing and Choosing a Procurement Strategy

Smallville: Smallville really must consider their purchasing options carefully. Let's assume they have two choices: 1) Purchase an upgrade from their current RMS vendor for a new crime analysis package; or 2) Buy a third-party product and develop an interface with the dispatch system for analyzing criminal activity.

Going with an upgrade to an existing product will probably fall under the umbrella of a sole-source purchase, and preclude Smallville from having to prepare a comprehensive bid document. While this may seem like a good solution, beware! This means that they'll need to spend extra time in crafting a clear SOW with the vendor during contract development. More importantly, they may need to get a waiver from the granting agency for sole-sourcing the contract.

Conversely, if they choose to go with a third-party product, they would likely be better served by an RFP process, which would allow vendors to compete for their business.

Ruralville: Because their project is a $25,000 discretionary purchase, Ruralville would most likely just sole-source the purchase, without spending the time or energy in preparing an RFP. Alternatively, Ruralville may be able to make use of a state-contract purchase. However, the option to conduct a scaled-down RFP process is always a possibility. Remember, competitive procurements force the vendors to compete with one another, and that places the agency in a position of advantage.

Negotiating an Agreement

Smallville: Let's assume that Smallville has found the perfect crime analysis software. Whether that software is an upgrade or a new purchase, careful contract development is the next step. First, they will consult with their City attorney to start the development of the terms and conditions. Concurrently, they'll need to start working with the vendor to define a clear SOW, and focus on that interface between CAD and the crime mapping software. Smallville knows that if they don't write it down, they should have

no expectation of receiving it during implementation!

Ruralville: Up to this point, Ruralville has gotten off pretty light in terms of project planning, but their luck has run out when it comes to contract development. The recommendations in Part III of this Tech Guide are as applicable to a $25,000 sole-source contract as they are to a $2.5 million competitive award. Ruralville will need to rely fairly heavily upon their parent organization's legal resources to help out with the terms and conditions, but agency personnel are always responsible for carefully crafting the SOW. *Your City or County attorney may not understand the complexities of the technology you are attempting to implement!*

SEARCH has spent many hours documenting a conservative and effective approach toward procuring technology and crafting a resulting agreement. Take advantage of the resources in this Tech Guide, as well as the original, to steer you through this complex, and often intimidating, process.

Now that you've bought it, you own it! It's your responsibility to ensure that the technology is both implemented and, ultimately, maintained to your satisfaction: the topic of Part IV.

Part IV: Implementing and Maintaining the Technology

The system of nature, of which man is a part, tends to be self-balancing, self-adjusting, self-cleansing. Not so with technology.

— Bill Gates

CHAPTER 6
IMPLEMENTING TECHNOLOGY

SHERIFF

Chapter 6: Implementing Technology

What After all your work at selecting a vendor, you must now oversee the installation and acceptance of the technology.

Why Failing to carefully manage the installation and acceptance could leave you with missed opportunities and an "unacceptable" outcome.

Who Virtually everyone impacted by the technology will play a role in the implementation and acceptance processes.

When Before the ink is dry on the agreement.

What to Expect During Implementation

When undertaking a technology endeavor, it would seem that the agency's work is never complete! While your vendor will be primarily responsible for the tasks associated with this stage of the project, it doesn't negate the need for your agency staff to participate heavily in the process. The following responsibilities are usually required of agency personnel during implementation:

Project Management Responsibilities

- Act as the agency's single point of contact for working with the vendor.
- Possess and maintain sufficient authority and responsibility to make decisions on a day-to-day basis about the project.
- Coordinate the activities of agency personnel and resources (including meeting attendance!).
- Provide sufficient resources to implement the operational use of the system.
- Secure contract change approvals, as required.
- Establish agency resources required for the vendor, such as work space, telephone, office and copying services, site access, and e-mail access.

System Administration Responsibilities

- Collaborate with the vendor's implementation lead for system-specific training and implementation of backup, recovery, archiving, and general system activities.

- Act as a single point-of-contact for all hardware, software, communications, interfaces, configuration, and general support issues.
- Manage the security and access to the system, administering user accounts and passwords.
- Develop and maintain systems support procedures.
- Perform routine, daily operational tasks for remedial and preventative hardware maintenance.
- Perform the first level of hardware diagnostics.
- Provide for immediate swap out of defective hardware components to minimize downtime.
- Perform the scheduling and administration of the backup and recovery of data and configuration files.
- Configure screen forms as requested by agency staff (configuration, unlike customization, is the responsibility of the agency, not the vendor).
- Monitor system loading and provide guidance on efficient use of hardware and software.
- Monitor system operation for peak performance.
- Perform system data capacity planning.
- Install and administer operating system software, utilities, and service packs or upgrades.
- Train additional technical staff for backup system administration duties.
- Document any system anomalies for inclusion into periodic site reports.

End User Responsibilities

- Participate in system configuration activities.
- Receive training.
- Test the system's functionality to be sure that it is doing what the vendor said it would do.
- Work at the direction of the Project Manager.

Direct Training vs. Train-the-Trainer

There are two types of technology training: direct training and train-the-trainer. Direct training, as the name implies, provides training directly from the vendor's staff to your agency's staff. Alternatively, the train-the-trainer approach provides training to a select few agency representatives who will, in turn, train their fellow agency employees.

In small or rural agencies, our assumption is that your agency employs fewer than 50 people. Therefore, all employees should receive direct training from the vendor. The train-the-trainer approach is used primarily in large agencies where direct training costs are prohibitive. However, it isn't unreasonable to have the vendor provide you with training materials that can be used when you train your own new employees in the future.

How to Keep Vendors to the Task

All agencies must maintain close watch over the project's schedule and tasks, in order to keep the vendor(s) focused. While the agreement may have stipulations that penalize the vendor for late or incomplete performance, it's better for all involved if such language is never enforced. We suggest that agencies undertake the following steps to help keep vendors focused:

Issue Payments Only After Milestone Completion: One of the most important contract elements is the association of payments to completed milestones. Oddly, few agencies ever enforce the language and some are even willing to authorize payments for incomplete milestones. ***Never do this!*** Once you have paid for a milestone, it will be viewed as complete and accepted by you. Moreover, it will reduce the total amount owed to the vendor, thus reducing the profitability (and related importance) of your project.

Occasionally, agencies will report having paid the vendor too quickly because they felt that they had to use grant funds that would otherwise expire. If you have concerns about the expiration of grant funds, be sure to contact your grant advisor before making premature payments to vendors. Often, the granting agency will permit you an extension of time, which is a far better approach!

Frequent Meetings: Nothing replaces face-to-face status reports. Therefore, frequent meetings with your vendor are mandatory. During the initial phases of technology projects, daily meetings are appropriate. By staying in close contact with the vendor, you will be the first to know of any delays or diversions. You may wish to supplement meetings with written meeting minutes and/or require that your vendor submit periodic progress or status reports so that you have everything in writing.

Enforce Your Contract: For reasons that are inexplicable, many agencies (large and small alike) fail to closely enforce the terms and conditions of their contracts. Remember that the agreement is the only controlling document between you and your vendor. Be familiar with the content (even if you're not the one who negotiated it) and enforce every element. *That's what it's there for!*

Maintain an Action Item Log: As your project progresses, keeping track of issues will become impossible without the use of an action item log. A simple form, this log keeps track of the following basic information:

— Date of Occurrence

— Description of Issue

— Proposed Resolution

— People Involved in the Discussion

— Proposed Action Plan

— Space for the Agency and the Vendor Representative's Initials

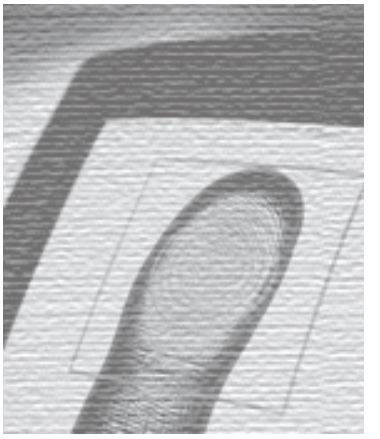
Prior to accepting the technology, use the list to "tie up" any loose ends and resolve any outstanding issues. By the time you reach the end of an average CAD project, it's not uncommon to have hundreds of outstanding issues.

Acceptance Testing

As you near the completion of your technology project, both you and the vendor must evaluate the technology's performance to ensure that it is doing what you expected it to do (and what the vendor promised it would do). There are three types of acceptance testing: Performance, Functional, and Reliability. You may refer to the original Tech Guide for three sample acceptance test plans in detail. Be sure to supplement the functional test plan with the functional specifications you crafted in Chapter 5.

In addition, acceptance testing can also include some form of early prototyping or pilot implementation, even in simple cases of small commercial off-the-shelf (COTS) implementations. You want to find out if it is really going to work before you do the complete implementation.

Because system acceptance typically triggers the start of the warranty, it's very important that any outstanding issues be corrected before final system acceptance.



CHAPTER 7
KEEPING IT ALL TOGETHER

SHERIFF

Chapter 7:
Keeping it All Together

What Technology is a permanent resident and you'll need to make arrangements for your new addition.

Why Because technology requires ongoing maintenance and attention to prevent it from becoming inoperable.

Who Primarily the Project Manager and any technical support personnel.

When Upon acceptance of the technology.

System Maintenance

For small and rural agencies, we strongly suggest that you enter into a support agreement with your vendor to provide technical support of the technology. However, even with a technical support agreement, you will still be responsible for some level of system maintenance. Typical responsibilities include: acting as the first tier of support when something goes wrong (you should know how to handle these events after receiving system administration training), providing software backups, and monitoring network operations, to name a few.

How to Handle Version Upgrades

On an average of every 18 months, public safety software vendors release software version upgrades. Unlike occasional software patches that fix known bugs, version upgrades typically include widespread changes to the features and functionality of the product. In this industry, it is typical for the upgrade to be provided at no cost if you have subscribed to the vendor's maintenance program. However, some costs will be incurred—training people on new aspects of the product and any impact on third-party products (for example, if you have a CAD and RMS provided by different vendors and upgrade the CAD, you will likely have to pay the vendor(s) to adapt the RMS accordingly).

Part IV Reality Check

Setting realistic performance goals and enforcing them is the common sense principle behind our advice with respect to implementation. By the time you begin implementing, you should have prepared a comprehensive agreement that clearly defines what you expect of your vendor and what they can expect of you. Therefore, implementation should be a matter of executing tasks as they appear in your SOW.

If only it were that easy! We recognize that things always go a little astray. If they do, small and rural agencies should activate their performance-incentive tools by only paying the vendor upon acceptance of tasks and deliverables. Consider the approach for our two sample agencies:

Implementing Technology

Smallville and Ruralville: Assuming that both agencies wound up with a very clearly worded SOW that articulated the responsibilities of both parties, implementation should be fairly predictable and successful. Like most small and rural agencies, both agencies should use the direct-training approach for each employee. Careful attention should be paid to the vendor's progress, and monthly meetings should be held to ensure compliance with the agreement. The vendor should only be paid upon completion of tasks. Lastly, a solid acceptance test plan should be administered prior to system acceptance.

Keeping It All Together

Smallville and Ruralville: With respect to system maintenance and version upgrades, both agencies must be prepared to provide first-hand technical support when minor issues occur or when major issues require triage. Both agencies should strongly consider the use of a maintenance agreement with their respective vendors, and should carefully weigh the advantages to installing version upgrades when they are made available.

Epilogue

SEARCH has been privileged to work with many small and rural agencies throughout the U.S. on their technology initiatives. We've always been struck by the seemingly endless creativity that small and rural agencies bring to bear in the arena of law enforcement technology, despite obvious limitations in human and financial resources.

Our intention in creating this Small and Rural Agency Tech Guide was to share best practices in project planning, procurement, and implementation, as we've come to understand them from your fellow law enforcement partners. Using the best practices in this Guide will change the outcome of your project for the better at a relatively small cost of focused effort on your part.

And, if you need help along the way, we'll be there to support you with technical assistance resources.

For More Information:

U.S. Department of Justice
Office of Community Oriented Policing Services
1100 Vermont Avenue, NW
Washington, D.C. 20530

To obtain details on COPS programs, call the
COPS Office Response Center at 1.800.421.6770

Visit COPS Online at **www.cops.usdoj.gov**