

**Part III:
Create a
Project Plan**

If you fail to plan, plan to fail.

— Anonymous



CHAPTER 8
PROJECT PLANNING:
WHAT IS IT AND WHY ARE WE DOING IT?

Chapter 8:

Project Planning: What is it and Why are We Doing it?

- What** A dynamic *process* that results in a *document* that guides the entire IT project design, procurement, implementation and future enhancements. It articulates each of the **deliverables**, the **procedures** and **resources** needed to produce them, and the **quality** measures they must meet to be accepted. This document can grow and change during the project's lifecycle.
- Why** The Plan is the repository for all project-related research, decisions, deliverables and documents. It is the *playbook* for the entire project. Project planning increases the success of projects through early detection of problems via constant monitoring of the projects' "vital signs."
- Who** The Project Manager and the User and Technical Committees are involved in discussions, decisions and research. The Project Manager should be responsible for Project Plan documentation. The Steering Committee and Executive Sponsor must endorse and sign the Plan.
- When** Following formal development of the decisionmaking structure (Part I) and in conjunction with the development of the needs analysis (Part II).

The Project Plan serves as the detailed roadmap guiding continued project planning, procurement, implementation and management. It is a disciplined effort to produce decisions and actions. The resulting Plan will catalog the decisions about what to do, and when, why and how to do it. It is an inclusive process, and is designed to keep all project stakeholders "on the same page."

While the Project Charter (Chapter 3) is a succinct document that illustrates the vision and intent of the proposed project and its key sponsors, the Plan articulates the specifics of getting the project done. The Project Charter is a key building block and starting point for the Plan.

A thorough Project Plan also assists in managing user expectations by detailing exactly what will be accomplished, how and when, and by whom. The process and subsequent documentation keeps things focused and moving forward. By documenting issues that have been dealt with and decided upon, it prevents "covering the same ground," which can often bog a project down.

Five Important Facts to Know about Project Plans

“
A thorough Project Planning Process provides the structure and procedures to ensure that adequate time and effort is put into identifying the project scope, deliverables, resource requirements and risks.

”

— Chief
Information Officer
Web Site, Treasury
Board of Canada
(www.cio-dpi.gc.ca)

- 1. Project Plans are dynamic.** The Plan will evolve and change as the Project Team, Project Manager and others conduct research and more clearly define the scope and objectives of the project. In addition to printed versions, the Plan can also be posted electronically so that the nature and evolution of the project can be charted for everyone involved. Doing so will not only enforce a singular vision of the project, but will also enable all those involved to see and constantly track progress that has been made, achievements they can be proud of, and decisions that have shaped the project to date.
- 2. Project planning is a creative process.** Given the pace at which technology and business are changing, ideas and decisions made at a particular point in the process may be altered significantly as new thoughts and information become available. As noted by the Alliance for Nonprofit Management (www.allianceonline.org), “The fresh insight arrived at today might very well alter the decision made yesterday.”
- 3. Project planning is not necessarily a linear process.** Some planning activities are related to and dependent upon other decisions. For instance, developing project objectives is dependent upon finalizing the scope statement, while detailing deliverables can only occur after both scope and objectives are completed. However, scope, objectives and deliverables may be revisited and modified pending the results of a thorough risk assessment and/or the resource requirements analysis.
- 4. To be effective, Project Plans must be used, reviewed, maintained and updated constantly.** This sounds obvious, but too often organizations go through the planning process only to shelve their Plan and never actually use it. The Plan will be the litmus test, if you will, for all project-related activities. The Project Team must constantly reaffirm the scope and objectives of the project so that when, for example, they are negotiating a vendor contract, they can always consult the Plan to compare the organization’s needs versus the vendor’s proposals.
- 5. Planning should not go on forever.** Do your employees sneer or groan when “planning” is mentioned? Often, they do so for a reason. Planning needs to be *managed* (hence the Project Manager!) and kept on a tight schedule. Too often the planning process is drawn out indefinitely, causing participants to lose interest or feel as though they will never begin to see the results of their planning efforts. The point is not to get paralyzed in the process. Set realistic timeframes and develop a schedule for the Plan that establishes a timeframe and planning goals.

Executive Sponsors: Prepare Your Organization for Change



An aspect of change management you must be extremely sensitive to and involved in is the organizational/human resources impact. You must help prepare the organization to support the changes that result from the introduction of automation.

During the needs analysis, current processes are identified, mapped and analyzed to identify ways to improve them for efficiency. Job positions may be redefined and processes streamlined. This may threaten some employees: some may believe their jobs will be eliminated and others may simply perceive that they will be removed from their “comfort zone” by change. Be aware that employees often begin their resistance to change early in the process. As Executive Sponsor, you must continually espouse the benefits of the change and manage the expectations of employees, adjusting the organization’s infrastructures in order to prepare employees for the changes that will be supported by the implementation of IT. You must also prepare them for the fact that their job responsibilities may shift and change (say from data entry to quality control), but that the intent is to improve the department’s operations, not to eliminate jobs.



You must establish *formal* procedures for managing change throughout the life of your project. (Don’t worry, we’ll help you do that.) We wanted to point out, however, that this is a critical factor in successful project planning and implementation. Things change. Scope will change. Timelines will be altered. Budgets will shift. But there **MUST** be a formal, thoughtful and controlled procedure for each alteration to any aspect to the project. This will ensure not only that the change is well researched and documented, but also that there are proper methods for approval and that all project participants are notified about the change and its impact on other parts of the project.

Once your Project Plan is complete, you will have defined formal procedures for making changes to the project scope, timeline, budget and other resources. And, in each chapter describing these concepts, we’ll address change management procedures.

The Project Plan's Table of Contents

Obviously, your Project Plan can be structured in many ways, but these are the main components that should be included in any plan:

- I. **Project Charter**
- II. **Scope, Project Objectives and Scope Management Plan**
- III. **Project Schedule and Milestones**
- IV. **Budget**
- V. **Risk Management Plan**
- VI. **Communications Plan**

Project planning is ...

- Disciplined
- Research-based
- Continuous
- Dynamic
- Inclusive

The Project Charter was created in Part I of this Guide. The remaining chapters in Part III will address the other major components of your Project Plan — from scope through communications.



CHAPTER 9 CONDUCT SCOPE PLANNING

Chapter 9:

Conduct Scope Planning

- What** A *process* to precisely define and document specific activities and deliverables for a particular project.
- Why** Defining the project scope and objectives clarifies and defines the project focus and keeps activities in control and within agreed-upon boundaries. It also establishes a formal process for proactively managing changes in project scope.
- Who** Led by the Project Manager, the User and Technical Committees will be most involved in defining scope, objectives and approach, to be adopted by the Steering Committee.
- When** Following the needs analysis (see Part II).

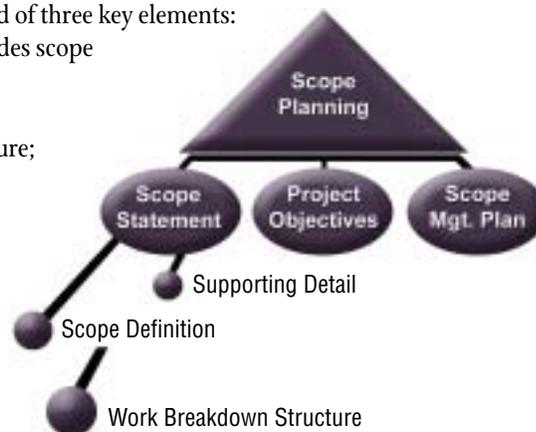
When your Project Team developed the Project Charter, that document served as the formalization and kickoff for the project. It was assembled to garner stakeholder commitment and authorization to move the project forward. While some initial scope boundaries and high-level objectives were included in the Charter, the Project Plan must contain *very* detailed and specific scope requirements.

This chapter will help you and your Project Team dive into scope planning and develop a substantively detailed scope statement, project objectives and a Scope Management Plan.

Careful scope planning is comprised of three key elements:

1. A **scope statement** that provides scope definition with:
 - a. Supporting detail
 - b. Work breakdown structure;
2. **Project objectives**; and a
3. **Scope Management Plan**.

Each of these elements is essential to establishing and justifying a clear scope definition, and creates a process to manage potential scope changes.



1. The Scope Statement: What's In, What's Out

The scope statement “provides a documented basis for making future project decisions and for confirming or developing common understanding of project scope among the stakeholders,” says the Project Management Institute (PMI). The scope statement should make very clear what is “in” the project and what is “out.” For example, agency X has decided that the computer-aided dispatch (CAD) system will be redesigned and replaced. Although the agency also recognizes the need to replace the existing records management system (RMS), it simply cannot afford to do so at this time. Therefore, during scope definition, the agency decides that while CAD is “in,” RMS is “out.”

How do you Prepare the Scope Statement?

The Project Manager and User Committee should work together to develop the scope statement using the following input:

- Executive Sponsor and Steering Committee vision.
- Results of the environmental scan.
- Business process review, needs analysis and analysis of the existing technological environment.
- Available human and financial resources.
- Quality desired from the project.

The User Committee should consider and document:

- The major **functionality** to be implemented (decision support, data entry, management statistics).
- Types of **deliverables** that are in scope and out of scope (e.g., CAD, but not automated vehicle location (AVL)).
- **Types of data** that are in scope and out of scope.
- **Data sources or databases** that are in and out of scope.
- Which **units** will be affected and/or expected to use the system (dispatch, patrol, crime analysis, etc.).
- What is specifically **out of scope**.



For once it's safe to make an assumption! In fact, it's *required*.

Project Plans rest upon certain assumptions regarding various project themes and participant responsibilities. The assumptions will be used primarily for decisionmaking and sometimes for dictating participant responsibilities. (To the extent possible, verify that your assumptions are valid.) Consider the following examples:

- Patrol and records employees are willing to change business operations to take advantage of the functionality offered by the new CAD/RMS.
- The Steering Committee will participate in the timely execution of the Project Plan (i.e., timely approval cycles and meeting when required).
- The Project Team will abide by the guidelines identified within this Plan.

a. Supporting Detail

Much of what was prepared for the “**business case**” in the Project Charter (Chapter 3, page 56) will become the supporting detail for the scope statement. Additional detail may be identified as the Project Team fleshes out the scope statement.

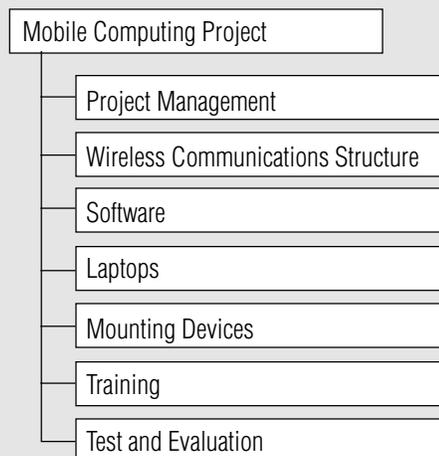
Major project **assumptions and constraints** should also be catalogued in the scope statement's supporting detail. The assumptions and constraints should relate back to the agency's business objectives and overall mission and goals. For example, the agency's overall mission may be to move toward a problem-solving paradigm. Thus, the technology implemented must be developed to support that goal. It is critical, then, that the scope be continually assessed to ensure that it is aligned with the organization's mission, goals and overall objectives.

If there are specific **grant requirements** and/or directives for the project, they too should become part of the supporting detail for the scope statement.

b. Work Breakdown Structure

Once the scope has been sufficiently detailed and defined, it can be broken down into smaller elements or projects that produce specific deliverables. Dissecting scope in this manner is commonly referred to as a work breakdown structure (WBS). Each of these subcomponents of the scope must, obviously, be directly related to and descendant from the scope. Therefore, no activities that are outside of the scope of the project should be included in the WBS. Breaking the scope into manageable pieces begins to define activities and milestones that, once completed, will comprise the full project scope.

A WBS FOR A MOBILE COMPUTING PROJECT



2. Project Objectives: Measures for Success

Project objectives are “quantifiable criteria that must be met for the project to be considered successful,” says PMI. They are the yardsticks by which success is measured. Objectives are a critical part of scope because they help the Project Team, stakeholders and users assess whether or not the finished product(s) did what it was supposed to do, how well it did and, ultimately, if it was a success. Thus, objectives must include measures of **quality, time, cost, performance, reliability** and/or **functionality**.

Objectives are important to review in the context of scope to ensure that the Project Team is not trying to do something that is clearly impossible, too broad (or narrow), or simply not consistent with the scope.

Project objectives should be specific and achievable if they are to be of any value. Over-reaching or generic objectives create unrealistic expectations and should be avoided. Consider the following examples:

Think **SMART!**
Objectives are:
SPECIFIC
MEASURABLE
ACCEPTABLE
REALISTIC
TIME-SENSITIVE

- Instead of saying, *The new RMS will help our citizenry*, say
The new RMS must provide online case summary statistics to inform community watch groups and the public in general.
- Instead of saying, *The new RMS should reduce paperwork*, say
The new RMS should include an optical imaging component that must reduce paper document storage by at least 50 percent.
- Instead of saying, *The new RMS should offer improved access to data*, say
The new RMS should enable users to create ad hoc reports.

Objectives offer the organization principles by which decisions are based. As the project matures, it is likely that the decisionmaking structure will be confronted with difficult choices. During the decisionmaking period, the Project Team should be able to turn back to the project’s objectives for guidance and direction.

3. Scope Management Plan: Prevent ‘Scope Creep’

Scope planning is not finished until you have developed a thorough Scope Management Plan. This is a critical activity designed to effectively guide and control projects. Many projects fail due to a shift in focus to deliverables that were not part of the original project scope. The Scope Management Plan should be a formal process and it should be documented in the Project Plan.



Scope planning is
INCOMPLETE without
the Scope
Management Plan!

The issues to be addressed in the Scope Management Plan include:

- How scope will be managed throughout the project and how to establish a formal process for managing change.
- An assessment of the project’s scope, as originally defined, and how likely and how dramatically it may change during the course of the project.
- A clearly defined process for how scope changes will be:
 - identified,
 - classified, and
 - prioritized.
- A requirement that any change requests must be documented on a *Project Change Request* form that details the proposed change, the individual or group proposing the change, why the change is being proposed and the Project Manager’s review decision. If accepted, the Executive Sponsor (or his or her designee) must approve the change.
- A process for measuring the impact the change in scope will have on the project, particularly in terms of quality, time and cost.



Executive Sponsors: *You (or your designee) must approve scope changes. After all, scope changes will definitely impact the project’s quality, timeline or cost (remember the scope-time-cost triangle introduced on page 58). Only the Executive Sponsor, or his or her designee, can approve project and potential funding changes.*

The goal, of course, is to spend sufficient effort defining the scope up front to minimize the need for major scope changes later.

Keeping the scope of a project focused is difficult. In his informative paper, “Scope Containment in Information Systems Projects” (www.newgrange.org/white_papers/scope_containment_ininformation_.htm), Ted Marcus explains that once a project is underway, some new dynamics occur:

- Project Team members (and other users) learn more and realize that what they

According to Gary H. Anthes in a *Computerworld* article titled, "No More Creeps!," one survey found that 44% of respondents said poor requirements definition is the reason for scope creep, while another found that only 16% of Project Managers say "no" to user requests for "significant changes."

originally asked for may not be exactly what is needed, so a change in scope or requirements is necessary;

- The business needs may change during the course of the project, so that what was originally articulated in scope is no longer needed; or
- The marketplace and IT offerings have changed.

The bottom line is that scope changes *will* occur during your project. A structured process for documenting, analyzing and approving such changes is key to avoiding an out-of-control project or unanticipated surprises, such as changes in timeline or cost.



CHAPTER 10 DEVELOP THE PROJECT TIMELINE

Chapter 10:

Develop the Project Timeline

- What** A *mechanism* to ensure the project is completed on time within the resources available, and avoids delays and associated cost overruns.
- Why** Overdue projects cost more money, impact deadlines on existing and other projects, can cause sacrifices in quality, and can result in stakeholder and user frustration and loss of confidence.
- Who** The Project Manager will set realistic schedules, as well as deliverable and milestone deadlines.
- When** Following scope planning.



Throughout the life of your project, you will need to constantly balance the constraints of time (length of time the project takes to complete), quality and cost. As we've mentioned before, these three sides of the triangle are constant rivals throughout the project — when one “point” on the triangle grows, so do the others. A good Project Manager can usually contain two of the three triangle points; achieving all three is a real challenge. In Chapter 9, we discussed how to carefully define your project's scope. In this chapter, we'll deal with how to nail down an aggressive, yet realistic, project schedule.

How to Develop an Estimated Project Schedule

PMI says effective project time management is comprised of five processes:

- Activity Definition
- Activity Sequencing
- Activity Duration Estimating
- Schedule Development
- Schedule Control

First you must define which **activities** will produce the various project deliverables, determine their **order** and their **dependence** on one another, and how **long** each activity will take. By analyzing the appropriate activities, order and dependence, you will be able

to create an actual schedule and, finally, as we have reiterated in earlier chapters, a means to **control** the schedule and any changes to it.

Determine Project Activities and Their Order

You will want to use the work breakdown structure developed in the scope definition (Chapter 9) to assist you in determining both the **activities** and **deliverables** that will be captured in your project timeline. You will then have to logically sequence those activities. That's easy to do when you're dealing with some of the initial planning and needs assessment activities. It gets a little more complex when you get into systems implementation issues.

In any event, create a logical flow of activities. Clearly delineate when one activity depends on the completion of another before it can get underway, as well as when the completion of that activity signals the start of a different, new activity. Also look at what activities can run parallel to one another.

As you are determining the various activities, make sure to define the major deliverables and milestones and indicate if they have a preset "due" date. This will be particularly important when we get to milestone reviews (page 134 of this chapter).

Be careful not to establish "unrealistic" milestones that can cause major schedule problems down the line, such as:

- Creating an end date designed to impress, rather than one based on the actual work necessary to complete the project.
- Not having quality objectives, as we discussed in Chapter 9, so that a milestone is not complete until it meets certain quality controls.
- Shifting activities into the next milestone without a careful evaluation of the impact and a reschedule of the rest of the project.

Estimate How Long the Activities will Take

Now that you've listed all the activities, deliverables and milestones, think about how long each activity will take. This will be based on some understanding about just how long the activity would take under ideal circumstances, augmented by several other things: staff resources, availability and capabilities; any historical documentation on past projects; and the assumptions and constraints you catalogued during the scope definition process.

PMI Definitions

Activity: An element of work performed during a project that normally has an expected duration, as well as cost and resource requirements.

Deliverable: A measurable, tangible, verifiable outcome that must be produced to complete a project or part of a project.

Milestone: A significant event in the project, usually completion of a major deliverable.



Executive Sponsors: It is tempting to want to impose a schedule on your Project Team. DON'T! While your priorities are important and will be built into the schedule process, you will set the project up for failure if you dictate a schedule rather than direct your Project Manager and staff to conduct this detailed assessment of the timeframe needed to realistically and successfully complete the project. You can help by adjusting resources and priorities, but you should not force a schedule on the team.

— Staff Availability and Capability

When determining how long a task will take, you must consider the percentage of time an individual (or several individuals) can devote to the task. You should also involve those who will be working on the task to help you estimate the accuracy of the time allotments. You must also take into consideration the staff expertise in the areas they will be working on. If this is the first time an individual is working on a project of this nature, training may be needed, and there may be a learning curve that will add to the project timeline.



Schedules should be built “from the bottom up.” Schedules built by people other than those who will be doing the work won’t be accurate. Obviously, appropriate oversight and management of this task is necessary.

— Historical Documentation

Look at the schedules from past projects to help you get a realistic look at timelines, where the project may have gone astray and what tactics kept it on track. Or ask another department or agency for historic records to review. Remember to keep the current project’s timeline up-to-date in order to track “estimated versus actual” timelines for use in future projects.

— Assumptions and Constraints

You’ll also want to consult the assumptions and constraints that you documented in the scope definition process. These issues may directly impact the timeline of your project. For example, you may have documented that a particular “constraint” to your project would be that County IT staff are busy rolling out a new financial system that won’t be complete until 2 months into the projected start date of your project. The County IT staff availability will impact your deliverables schedule and you’ll want to plan accordingly.

Draft a Project Schedule and Seek Input

By this point, your schedule should be relatively detailed. It should have:

- Project start and finish dates.
- Activity duration estimates.
- Deliverables and milestones.
- Resources assigned to activities.
- Calendars: one for the entire project and another for staff resources that details when each individual works, takes time off, is on vacation, etc.

Take a look at the example of an RMS project timeline on the next page and then run your project schedule by the Project Team for a reality check.

Create a Schedule Management Plan

Scheduling, like many activities throughout the project, will be an iterative process — but it must be managed. There will be changes to the schedule, and those changes must be “thoroughly integrated with the other control processes,” such as scope and overall project change control, says PMI. Aside from activity and other estimations that just may be “off,” scheduling will change when there are scope or other major project changes.



Project Managers:

Schedules should be detailed. Some sources indicate that if the schedule is in increments longer than 1 week, it is not detailed enough.

Project Team members need a weekly goal — otherwise they risk being off by a week.

Multiply that by multiple tasks and people, and the project could easily end up way off schedule.

With scheduling, there is a fine balance between creating a detailed enough schedule, yet avoiding one that is so tightly drafted and so granular in detail from the outset that frequent changes are necessary just to make the schedule realistic. Too many schedule changes resulting from an unrealistic or overly detailed schedule at the outset will frustrate managers and Project Team members, and will almost accustom them to ignoring set deadlines.

Schedule control should be comprised of these things:

Schedule Management Plan. This plan will discuss how changes to the schedule will be managed. Change requests, for example, should be required in writing.

Performance Reports. Regular performance reports provide details about project status, including which deadlines have been met and which have not. We recommend that performance reports — whether prepared by the vendor or internal staff — be provided on a weekly or biweekly basis. Monthly reports are not recommended because if a problem surfaces, it can go unchecked for a month or longer before it is reported to and addressed by the Project Manager. This amount of lag time can make it much more difficult to correct the problem and get the project back on track. The Project Team should also have a “milestone review” session following the completion of major milestones.

Milestone Review. Taken together, milestones complete your entire project. Their importance, and the quality with which they are met, are critical to the project's success. It is important that as each milestone is met, you gather the Project Team together to review and analyze the milestone completion itself and the process for its completion, and adjust the schedule for future deliverables and milestones, if necessary.

Post It!

Once the project schedule is complete, post it in a high profile location so all team members can easily review it. The timeline will also be a component of the project Web site to be developed, which we will discuss in Chapter 13: Prepare a Comprehensive Communications Plan.

And remember: Keep the timeline up-to-date for archival and historical purposes!



CHAPTER 11
ESTIMATE COSTS AND DEVELOP A BUDGET

Chapter 11:

Estimate Costs and Develop a Budget

- What** Estimating *initial* and *recurring* costs in terms of people, materials, equipment and services (both internal and external) to complete and maintain the entire project.
- Why** So your agency and funding bodies will know how much money to allocate toward initial and recurring costs in order to make the project a success.
- Who** Project Manager, your parent organization's finance representative and possibly your grant writer (if your agency or jurisdiction has one).
- When** Once the scope is defined and the schedule completed.

A typical annual law enforcement budget is divided between human and capital resources, with each half competing for a shared slice of government revenue. While agencies generally excel at budgeting for manpower and equipment, the practice of preparing initial and recurring budgets for IT initiatives continues to evade most agencies.

Consequently, many IT initiatives are challenged by a lack of financial and human resources, particularly following implementation, when unanticipated support and maintenance costs commonly arise.

In this chapter, we'll focus on the key elements for properly estimating initial and recurring costs for a technology initiative.



Initial Costs versus Recurring Costs. Initial costs are one-time expenses your agency incurs, such as the purchase of a squad car. Recurring costs are comparable to the continuing costs necessary to operate the squad car, such as fuel, maintenance and insurance.

The Project Budget

Agencies preparing an IT project budget will generally fit into one of three “starting point” scenarios:

1. Our agency has been preparing for years as part of a capital improvement project, and has X dollars dedicated for the initiative.
2. We want to buy technology, but aren’t sure of what it will cost.
3. Our agency applied for and received a grant — so let’s start spending because time is running out!

The budget should include estimates for:

- Hardware
- Software
- Operating Costs
- Staff Costs
- Training
- Skills Development
- Maintenance
- Consultants

Despite varying levels of planning, each of the three scenarios begins with the agency preparing a “guesstimate” of how much money needs to be set aside to cover the human and material costs for the project, both today and in the future.

During our research, we found that many agencies that failed to create a budget reported that they either didn’t know how to do it or thought someone else (in the City or County) was doing it for them. Therefore, in an effort to prevent the further waste of thousands, if not millions, of dollars, we wish to definitively state: **YOU ARE RESPONSIBLE FOR CREATING YOUR OWN PROJECT BUDGET!**

Now, let’s show you how ...

Preparing the project’s budget is not rocket science. It is actually very simple, and requires only a few steps — and a little bit of research:

1. Gather Internal and External Cost Data.
2. Create a Project Budget of Initial Costs.
3. Estimate Recurring Costs and Include in Budget.
4. Plan for Ongoing Updates to Project Budget.

The fundamental element on which all project budgets are built is **knowing what you want to buy**. Therefore, start with the project scope you developed (Chapter 9). Your scope statement specifies the technology that is being sought (i.e., CAD, RMS, Mobile Computing, etc.). Using those broad terms as the foundation, the first step in actually preparing the budget is to gather the two types of cost information that are related to the project scope: internal and external.

Gather Internal and External Cost Data

Internal Costs

Essentially, the internal costs are those over which your agency has direct financial responsibility and control, including: *personnel costs* (i.e., Project Manager, technical support staff, etc.), *infrastructure costs* (i.e., network connectivity, possibly hardware), *cost recovery fees*, etc. Internal costs are the easiest to identify because *they already exist* within your budget framework; they simply need to be mined and identified. Internal costs are almost always left out of a project's budget because they are considered "in-kind," or existing costs. Regardless of their pre-existing condition, you must identify internal costs for two reasons:

1. **Recurring Costs** - Although we explore the calculation of recurring costs later in this chapter, you need to recognize that the failure to identify internal costs as part of the overall project budget will skew recurring cost calculations and lead to unanticipated costs in the future (a very bad thing).
2. **Grant Compliance** - Agencies that receive grants are usually required to produce matching funds as a condition of the grant. Although internal costs can translate into matching funds when properly budgeted, remember a COPS grantee cannot use Federal funds in place of any local funds previously appropriated or regularly spent on any item.

External Costs

These are the costs that most agencies associate with procurement and are generally lumped together in three main categories: hardware, software and services. External costs encompass more than just the vendor-supplied products and services. They also include the staff, resources, supplies, infrastructure, consultants and virtually all project elements that fall *beyond the direct financial control* of the agency or the parent organization. Specifically, the following are considered external costs:

Q&A: What are cost recovery fees?

Some agencies must transfer funds from their budget to that of their parent organization's IT management division in order to "pay for" technology support, management, etc.

A Note About Matching Funds:

Agencies should look within the organization to identify all the costs for which they are responsible. Allowable matching funds will vary, however, depending on the requirements of the grant award or program.

Agencies should consider procuring their own hardware, independent of any vendor contracts, for two reasons:



1. Law enforcement agencies are eligible for hardware discounts from many manufacturers (vendors are not).
2. Vendors almost always levy a surcharge of between 5% – 10% on the client for having to order/purchase hardware components.

Make sure you discuss this approach with your Technical Committee, including their ability/desire to manage this acquisition themselves. You must also place the burden on your software vendor to provide you with a complete and detailed list of the hardware specifications required for their software solution.

“IT is a significant cost to organizations; often, IT is cited as the number two expense, following personnel.”

— ‘What Every Manager Needs to Know About Budgeting’ Tutorial at www.rms.net

Hardware: This includes the actual servers, workstations, laptops and other computer hardware that will be necessary for the project, including infrastructure (network components) and telecommunications devices (including wireless modems). Hardware costs are usually any “capital” expense related to the project. Think of these expenses as objects that are purchased by and reside within the organization.

Software: This includes all the software required to make the system operational, including: operating system software (e.g., Windows NT, XP), vendor-supplied application software (e.g., Vendor X’s CAD application), third-party software (e.g., software that is required for the proper operation of the application, such as Crystal Reports) and any network management tools.

Services: These are the hourly costs that can be attributed to people doing something for the project, including:

- project management,
- installation (if applicable, don’t forget to include mobile data device installation fees into this category if your in-house maintenance staff will not be installing the devices),
- training,
- support,
- consulting, etc.

In addition to the “people costs,” there are some indirect service costs that are necessary for some types of law enforcement technology initiatives. For example, agencies may be required to pay a recurring “service fee” to a cellular wireless infrastructure provider for mobile data.

Other External Costs: Generally, “other costs” are exception-based. That is, these may or may not be included in your budget, depending on special circumstances, such as new building construction or a communications center remodel.



The cost of services may be difficult to ascertain from the vendor without asking for the costs directly — vendors are often unwilling to divulge hourly rates for specific services (such as training) unless the client demands they be identified. What is the risk of not doing so? Vendors can manipulate and escalate services and software customization costs after the system is implemented, when the agency has very few options. These costs should be identified prior to signing the contract, and should be included in the contract.

Identifying External Costs: Unfortunately, there are no hard and fast rules for identifying the external costs of specific law enforcement technology components. For example, it's virtually impossible to identify an "average cost" for a CAD system simply because there are so many variables: agency size, vendor selected, number of required licenses, number of workstations, level of customization and much more! The list of variables that impact project cost is staggering and prevents the identification of averages.

Now, some good news: you aren't the first agency to enter into an IT initiative! So don't reinvent the wheel. *Consider the following sources for identifying your initial external costs:*

■ **References (Networking):** The least technical, and fastest, method for seeking basic budget information is simply contacting agencies that have already purchased the solution you seek. Most agencies are pleased to offer such information as a courtesy to fellow law enforcement organizations. Simply ask them for a copy of their project's budget (remember, this stuff is public-accessible information, so in the rare event an agency declined your offer, it would still be possible to access the information through the City or County Clerk's office). If they procured their solution through competitive bidding (i.e., Request for Proposal process), ask them if cost summaries are available. While information from references is usually the fastest source, it is also the least reliable because it will not be a true apples-to-apples cost comparison. However, it should provide you with a range of external costs that can be amended as more knowledge is obtained.

Note:
See page 176
for more
information
on RFIs.

■ **Request for Information (RFI):** Prepare and issue a request for information, or RFI document. Basically, it's a written request from you (the issuing agency) to the vendor community, asking for "ballpark" pricing and product information. The responses will likely yield more reliable price ranges than reference checks alone, given that RFIs usually provide the vendors with the project's basic information, including: project scope, internal resources and basic expectations for the project. RFIs are not without detriments: First, the RFI boldly announces to the vendor-world that you are a marketable client. Consequently, expect a deluge of literature and phone calls shortly after issuing the document. Second, RFIs can lead to becoming "married" to a vendor, thus skewing the Project Team's objectivity.

■ **Outsourcing:** Not surprisingly, outsourcing the cost estimating portion of the project is generally the most reliable. Consultants are continuously exposed to vendor proposals and can predict most project costs within a 5% margin of error. Naturally, such service comes with a cost (and, ironically, becomes a budgetary line-item itself).

Create a Project Budget of Initial Costs

Before we discuss the method for preparing a project budget of the initial (or one-time) costs, we should clarify our use of the term “one-time.” Remember, information technology is *never* a one-time-only expense. Rather, it is an *ongoing and permanent* element of the law enforcement business. For our purposes in this chapter, we must refer to the need for creating a budget of the initial costs as a critical element of the overall project budget, which must include recurring costs as well. **Remember, agencies that fail to plan for ongoing, recurring project expenses are more likely to fail.**

After you gather data on the basic internal and external costs, most of the ingredients are in place to prepare an “initial project budget” that represents the costs associated with the initial cost impact of the project. However, you need to identify three additional costs in the budget that are based upon project subtotals: contingency, bonding and consulting costs.

Contingency costs:

Funding set aside for unforeseen, and generally unbudgeted, expenditure requirements.

■ **Contingency costs:** Traditionally, contingencies are calculated at 10% of the hardware and software costs. However, in recent budgets, we have witnessed contingencies that are based on 15% of total project costs. The decision should be based on the agency’s level of knowledge of vendor performance. If your agency is conducting initial budget planning, a larger contingency is reasonable. If your agency already has a vendor quote, the decision should be based on feedback from previous vendor clients (remember to ask them the percentage difference between estimated and actual costs).

Budgeting for contingencies is also important to protect your agency from unanticipated additional costs it may have to incur. For example, your agency may find that the computer room is too small to house additional servers once they are delivered, or that the air conditioning system is inadequate to cool the computer room. Perhaps new T-1 lines must be added or additional software licenses were not anticipated, but are needed at the time of implementation. Contingency funding could help offset the costs for vendor or agency issues not anticipated, even in the most thorough planning process.

The Budget Duration Timeline:

Initial, one-time costs occur between project start date and system acceptance.

Recurring costs occur after system implementation.

■ **Bonding costs:** Many governmental agencies require vendors to supply various forms of bonding, including performance, maintenance and payment. There are nuances to each, but for budgetary purposes, assume a cost of 1% of the total project costs for each bond. (**Note:** It is possible to have the vendor pay for these costs through rigorous contract negotiations, but for budgetary purposes, assume that you will be responsible.)

■ **Consulting costs:** As a rule of thumb, “full-service” project consultants — those who provide needs analysis, project planning, procurement assistance, contract negotiations and implementation assistance — will receive an average of 15% of total project costs.

In terms of budget duration, refer to the project timeline that you developed in Chapter 10. The initial, one-time costs should cover all of the internal and external expenses that occur during the period between project start date and system acceptance. All other costs will be post-live date and should be considered recurring.

We suggest that agencies prepare their one-time budget using a spreadsheet application and begin by listing the primary internal and external costs, using a range of pricing as determined through references, RFI or outsourcing. To illustrate our suggestion, review the following sample one-time cost summary for a fictitious RMS/JMS project. Note: The example is a cost *summary*. Behind the summary would be the breakdown of individual costs associated with each category (i.e., the specific cost of each server, workstation, etc.).

■ **Sample Initial Costs**

	ITEM	DESCRIPTION	ONE-TIME	
			LOW	HIGH
RMS/JMS-External	Hardware	Primary/Backup Server, Infrastructure, Desktops	\$ 175,000.00	\$ 260,000.00
	Software	RMS, JMS, 300 Concurrent, Minor Customization	\$ 750,000.00	\$ 1,600,000.00
	Services	Installation, Management, Interfaces, Modifications	\$ 675,000.00	\$ 1,150,000.00
	<i>Subtotal</i>		<i>\$ 1,600,000.00</i>	<i>\$ 3,010,000.00</i>
	Professional Services	Consulting	\$ 350,000.00	\$ 400,000.00
	Contingency	10% of Hardware/Software	\$ 92,500.00	\$ 186,000.00
	Bonding	Vendor Performance Bond	\$ 16,000.00	\$ 30,100.00
	Project Subtotal		\$ 2,058,500.00	\$ 3,626,100.00

	ITEM	DESCRIPTION	ONE-TIME	
			LOW	HIGH
RMS/JMS-Internal	Hardware	None	\$ -	\$ -
	Software	Existing City Oracle and Windows License Fees	\$ 32,000.00	\$ 34,000.00
	Services	Existing Project Manager, 1 Support Technician	\$ 140,000.00	\$ 150,000.00
	<i>Subtotal</i>		<i>\$ 172,000.00</i>	<i>\$ 184,000.00</i>
	Contingency	10% of Hardware/Software	\$ 3,200.00	\$ 3,400.00
	Project Subtotal		\$ 175,200.00	\$ 187,400.00

Project Totals			\$ 2,233,700.00	\$ 3,813,500.00
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The initial project budget will naturally change as the project evolves. Depending on which of the three starting point scenarios best applies to your agency, you may have to adjust the initial budget on a monthly or semimonthly basis as new facts are discovered. However, once the project nears the point of contract signing, the initial budget should become more concrete, with the ranges of high vs. low narrowing to a margin of 2.5% error.

This initial budget will be closely linked with the project’s Risk Management Plan (Chapter 12), as acceptable cost over-runs must be tracked using this document.

Estimate Recurring Costs and Include in Budget

Very large organizations may need to track recurring costs more frequently, given the volume of cashflow for internal and external support costs.

Recurring costs are generally predicted on an annual basis, although we have seen recurring cost prediction models created on a biannual basis during the first 5 years of a system’s usage.

The recurring costs are based upon percentages shown below, and are generally determined by whether your agency will be purchasing a vendor’s maintenance package or conducting in-house maintenance with existing staff. The difference is clear, but be sure to note that support costs may be internal or external, depending on your support choice. If they are internal, be sure to include these in your budget so that funding for these support resources continues post-implementation.

Recurring Cost Calculations

- Hardware 10% of One-time Costs
- Software 12.5% of One-time Costs
- Services (Internal Only) Dependent on Agency Compensation
- Contingency 10% of the Recurring Hardware and Software Costs

■ Sample Recurring Costs

	ITEM	DESCRIPTION	ONE-TIME		RECURRING	
			LOW	HIGH	LOW	HIGH
RMS/JMS-External	Hardware	Primary/Backup Server, Infrastructure, Desktops	\$ 175,000.00	\$ 260,000.00	\$ 17,500.00	\$ 26,000.00
	Software	RMS, JMS, 300 Concurrent, Minor Customization	\$ 750,000.00	\$ 1,600,000.00	\$ 93,750.00	\$ 200,000.00
	Services	Installation, Management, Interfaces, Modifications	\$ 675,000.00	\$ 1,150,000.00	\$ -	\$ -
	<i>Subtotal</i>		<i>\$ 1,600,000.00</i>	<i>\$ 3,010,000.00</i>	<i>\$ 111,250.00</i>	<i>\$ 226,000.00</i>
	Professional Services	Consulting	\$ 350,000.00	\$ 400,000.00	\$ 17,500.00	\$ 20,000.00
	Contingency	10% of Hardware/Software	\$ 92,500.00	\$ 186,000.00	\$ 11,125.00	\$ 22,600.00
	Bonding	Vendor Performance Bond	\$ 16,000.00	\$ 30,100.00	\$ -	\$ -
	Project Subtotal		\$ 2,058,500.00	\$ 3,626,100.00	\$ 139,875.00	\$ 268,600.00
RMS/JMS-Internal	Hardware	None	\$ -	\$ -	\$ -	\$ -
	Software	Existing City Oracle and Windows License Fees	\$ 32,000.00	\$ 34,000.00	\$ 34,000.00	\$ 36,000.00
	Services	Existing Project Manager, 1 Support Technician	\$ 140,000.00	\$ 150,000.00	\$ 150,000.00	\$ 160,000.00
	<i>Subtotal</i>		<i>\$ 172,000.00</i>	<i>\$ 184,000.00</i>	<i>\$ 184,000.00</i>	<i>\$ 196,000.00</i>
	Contingency	10% of Hardware/Software	\$ 3,200.00	\$ 3,400.00	\$ 18,400.00	\$ 19,600.00
	Project Subtotal		\$ 175,200.00	\$ 187,400.00	\$ 202,400.00	\$ 215,600.00
Project Totals			\$ 2,233,700.00	\$ 3,813,500.00	\$ 342,275.00	\$ 484,200.00

Plan for Ongoing Updates to Project Budget

You may also hear the term **Total Cost of Ownership** (TCO) as you do research and prepare your budget. Like recurring cost calculations, TCO refers to the total costs associated with ownership, usage and maintenance of the system over time.

Once the one-time and recurring cost estimates have been developed, the only thing left to do is prepare the Project Team (and your stakeholders in general) for budgetary updates and changes, as new information is learned or as project risks become reality.

It is critical to communicate with all Project Team members that budgets are **prediction models** up to the point that a contract is signed, and then they become **guidelines**. Budgets are always subject to change, based upon unknown factors. Therefore, it is important to create a realistic expectation that the **budget may change** as the project progresses.

The extent to which cost overages are allowable will be determined by the Steering Committee's Risk Management Plan (Chapter 12) and available funding.

Final Advice

Before you embark upon preparing your project budget, consider the following tips:



Supplanting: Okay, we said it — the “S” word. Supplanting occurs when agencies budget money for a project, then receive grant money and replace the budgeted money with the grant funds. This action is forbidden by most granting agencies. Therefore, when preparing a project budget, be sure to discuss potential grant funding sources with your parent organization *before* committing funds to ensure that your grant funds are supplementing — rather than supplanting — locally budgeted funds.

Finance Representation: Remember that one of your key Steering Committee members should be a representative from your parent organization's finance department or division. Such representatives are invaluable, as this is their specialty, so be sure to rely upon their expertise for conducting budget and planning sessions that are in concert with your organization.



CHAPTER 12 CREATE A RISK MANAGEMENT PLAN

Chapter 12:

Create a Risk Management Plan

- What** Risk management is a *planning process* that prepares the agency for dealing with potentially harmful events that could happen in a technology initiative.
- Why** To be proactive about identifying and managing potential risks and developing contingency plans to mitigate or avoid the negative impact of the risk. Preparing for potential risks helps to ensure that the agency's response is planned, measured and controlled.
- Who** The Executive Sponsor, Project Manager and Steering, User and Technical Committees.
- When** Risk management is conducted continuously throughout most projects, however, formal risk management planning can only start once the scope of the project has been identified. This is because it is difficult to identify risks until your project scope is refined.



Executive Sponsors: Project teams are often tempted to drop risk avoidance from their "to do" list, in favor of more tangible and pressing tasks. As the Executive Sponsor, you must motivate your Project Team not only to develop the Risk Management Plan, but also to update it on a regular basis. Think of the Risk Management Plan as your team's insurance policy.

Most public employees correlate risk management with insurance, or perhaps the City or County's Risk Manager. While they both manage exposure, that's where the similarity ends. In technology initiatives, risk management is a forward-thinking process that requires project leaders to envision challenges or threats to the project and develop contingencies for handling such events. In law enforcement, this concept is similar to the proactive vs. reactive approach to fighting crime. So, think of this chapter as your technology initiative's prearrival contingency planning guide!

Risk management is an essential component that project participants often sidestep because it requires forward thinking about events that may be inconceivable at the project's onset. Consequently, the vast majority of law enforcement technology initiatives never take into account how the agency will handle events that can threaten the project's quality, time or budget.

Based on our contact with hundreds of law enforcement agencies, we've learned that most project managers simply don't know how to pull a Risk Management Plan together. So, we'll start with the basics: How to create a Risk Management Plan.

How to Create a Risk Management Plan

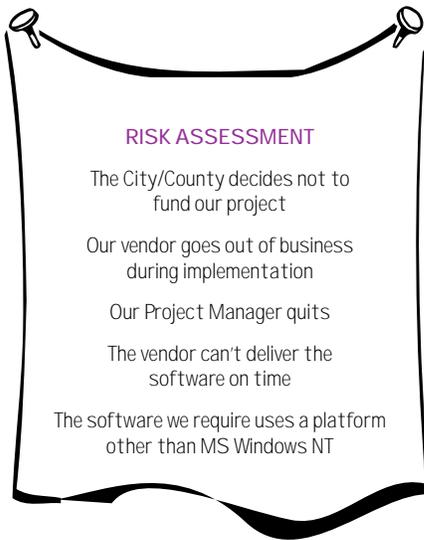
Step 1 Identify the Risks

The initial step in preparing a Risk Management Plan is to convene the project’s User, Technology and Steering Committees to introduce the concept that “sometimes, bad things happen.” In fact, they happen more often than not. Remember the Standish Group report’s statistics (see page 11), which indicate that more than half of the projects cost nearly twice their budget and resulted in less than half of the required functionality? Thwarting the unexpected isn’t always possible, but it is usually predictable and manageable.

Products that involve proven technology will, all other things being equal, involve less risk than products that require innovation and invention.
— PMBOK®

During the initial meeting, the Project Manager should ask the Project Team to identify potential “bad things” that could happen during the course of the project. The members should be encouraged to share war stories from other agencies, attendance at conventions, or even first-hand experiences. (This is rarely a quiet meeting!)

Examples of ideas should range from the basic to the complex, as illustrated in the list to the left. Using Focus Group meeting techniques like those described in Part II, the Project Manager should write each idea on a white board or flip chart so that each idea is clearly visible to the participants. That way, new ideas can be measured against existing ones, ensuring that there are no duplications. After there are about 25 to 50 items, take a break and get ready to quantify!



Step 2 Categorize and Quantify the Identified Risks

The next step in creating a Risk Management Plan is categorizing the identified risks in three ways:

1. **Likelihood:** The first question that the team must resolve is how likely the risk is to occur, based upon what is known today (remember that as new information is discovered, these categories should be updated). Categorize the likelihood in one or more of these categories:



Some agencies prefer to quantify risks numerically, particularly the larger agencies that need to deal with a large number of issues. For example, an agency may give each identified risk a number from 1 to 10 based on the perceived probability (likelihood) and severity, with 10 being the most probable/severe. Those risks with higher ratings could be dealt with first and most aggressively.

Remote: This risk will probably not occur.

Possible: This risk might occur.

Likely: This risk will probably occur.

2. **Area of Impact:** Next, the Project Team should determine which of the three critical project areas (time, quality and/or budget) will be impacted by the risk. Some risks may impact one or all of these areas.
3. **Severity:** The team must consider the severity of the consequences of a particular risk, based upon the overall impact that such an event would have upon the initiative. The decision on ranking the severity of a risk is clearly subjective, and is usually based on the Project Team's judgment and knowledge of the specific conditions that surround the initiative. The categories for this section are:

Low: The risk is manageable through planning and action, and may not impact project time, quality or budget.

Medium: The risk may be manageable through planning and action, although the event will probably have a negative impact on the project's time, quality or budget.

High: The risk will seriously impact project time, quality or budget. Planning or action may not be capable of saving the initiative.

Using our examples gained during the risk identification process, we've categorized them as illustrated in the graph on page 152:

RISK	LIKELIHOOD	AREA OF IMPACT	SEVERITY
The City/County decides not to fund our project	Remote	Time, Quality, Budget	High
Our vendor goes out of business during implementation	Possible	Time, Quality, Budget	High
The vendor can't deliver the software on time	Likely	Time	Medium
Our Project Manager quits	Likely	Quality	Low to Medium
The software we require uses a platform other than MS Windows NT	Possible	Time, Budget	Low to Medium

After identifying and classifying the potential risks, the Project Team is ready to drill down even further into the details of the three areas that could be impacted by a risk occurrence, including:

- How much **time** is likely to be lost?
- How much of the project's **quality** would be sacrificed?
- How much could it impact the **budget**?

Quantifying each risk may require the Project Team to make predictions that can be refined later, as more details are discovered. In keeping with our example, the graph on page 153 shows how we quantified our risks:

RISK	LIKELIHOOD	AREA OF IMPACT	QUANTIFICATION	SEVERITY	TOLERANCE
The City/County decides not to fund our project	Remote	Time, Quality, Budget	2-5 Years All Aspects Total Budget	High	Avoid
Our vendor goes out of business during implementation	Possible	Time, Quality, Budget	2-3 Months 20-30% Loss 10% Cost Overrun	High	Avoid
The vendor can't deliver the software on time	Likely	Time	2-6 Months	Medium	Mitigate
Our Project Manager quits	Likely	Quality	All Aspects	Low to Medium	Mitigate
The software we require uses a platform other than MS Windows NT	Possible	Time, Budget	6 Months (per IT) \$400,000	Low to Medium	Accept

COMMON SOURCES OF RISK INCLUDE:

- Changes in requirements
- Design errors, omissions, misunderstandings
- Poorly defined or understood roles and responsibilities
- Poor estimates
- Insufficiently skilled staff

Liquidated Damages: A contract provision that compels the vendor to pay the police department money if the vendor misses a promised deadline. As an example, a department may require a vendor to compensate them at a rate of \$1,000 per day for each day an interface is delivered late.

Holdbacks: A contract provision that allows the Sheriff's office to keep a percentage of a vendor's invoice until after the vendor successfully completes certain milestones (like project completion). Holdbacks are useful for keeping the vendor interested in completing all of the tasks associated with a project, even those that are less profitable than others.

Step 3

Determine Your Tolerance Level for Risks

Once the risks have been identified, categorized and quantified, the Project Team must adopt an initial level of acceptance for each risk in advance of developing a response plan.

For each risk, the Project Team must identify one of three levels of tolerance (as illustrated in the graph on page 153):

Avoid: The avoidance label is often used for risks that have the capacity to negatively impact the project's budget, timeline or quality but have little known recourse. For example, the risk within our chart regarding the vendor going out of business may be labeled as a risk to avoid (through careful vendor evaluation and selection).

Mitigate: The majority of risks will be categorized with this label. Generally, these are risks that can be compensated or resolved through the development and execution of a response plan.

Accept: The Project Team will likely find some risks to be acceptable, not requiring the development of a response plan. Generally, acceptable risks are either strategic in nature or have minimal impact on the project's budget, timeline or quality.

Step 4

Create a Response Plan

With each of the risks identified, classified and quantified, the Project Team should be ready to develop a response plan. The response plan seeks to identify how the Steering Committee and Executive Sponsor will minimize the negative impacts associated with any risk occurrence.

The actual response will be creative and based upon the unique circumstances surrounding the initiative. Generally, however, the Steering Committee and Executive Sponsor should consider the following:

For an impact on project time: Consider methods for preventing the slippage in the first place through (a) careful *contract language* (including liquidated damages, holdbacks, etc.) and (b) the creation of a *realistic timeline* that assumes delays (in other words, increasing the time necessary for various tasks based upon the assumptions of the Steering Committee and Executive Sponsor about the risk(s) involved in various project tasks). The response would then be predicated upon the use of contract language and predefined actions that would help to minimize the impact on the initiative.

“
Risk management helped make us successful and meet our deadlines.

”
— Tom Hennig
San Joaquin County
(CA) Sheriff's
Department

For an impact on project quality: Attempt to verify the vendor's full range of capabilities very early on in the procurement process. Many Risk Management Plans call for vendors to verify their ability to perform before contract signing, while others refuse to consider vendor products that cannot supply 80% or more of the required functionality. Additional tools include the insistence that vendors subscribe to fulfilling the letter of the contract as well as the spirit. In such circumstances, agencies identify both the *functional specifications* (the precise description of how a product should operate), as well as the *conceptual* goal (a high-level description of how a product should function). Again, the enforceable contract language would determine the response.

For an impact on project budget: In general, projects will cost more than original estimates. By identifying the extent of a budget overage in the Risk Management Plan, the Steering Committee and Executive Sponsor can identify a project contingency that should be a concrete budgetary line item. As a general rule, agencies should assume that their project will require 10%–15% more funds than those originally estimated. The response for these occurrences should identify those situations in which the Steering Committee is willing (and unwilling) to approve budgetary overages.

Maintaining the Plan

As referenced throughout this chapter, new risks are continuously being identified, while existing risks are refined. Therefore, each Project Team meeting should include a few minutes to discuss the Risk Management Plan, providing for new discussions and updates throughout the entire project lifecycle. Remember, devastating risks could arise even in the final phases of a project!

Risk Management Plan: Essential and Indispensable

Armed with a comprehensive Risk Management Plan, the project leaders are much more likely to manage events as they occur in a manner that takes advantage of available human and financial resources, rather than simply reacting randomly. A Risk Management Plan allows the project's Steering Committee and Executive Sponsor to control the project, rather than allowing unscheduled events to steer the project.

Aside from the clear benefits of accountability and management, projects that are designed with a comprehensive Risk Management Plan are perceived more positively by project sponsors and elected officials, because these key individuals are made aware of potential problems well in advance of their occurrence. Consequently, the project's management demonstrates control of the project's time, quality and budget.



CHAPTER 13
PREPARE A COMPREHENSIVE
COMMUNICATIONS PLAN

Chapter 13:

Prepare a Comprehensive Communications Plan

What *Strategies* for communicating project status and activities to key stakeholders, and *methods* for developing historical project records and archives.

Why First, to keep users and stakeholders informed, involved and up-to-date on project activities. Second, to create a “paper trail” of historical documentation critical when personnel change, for grant reporting purposes and for future project planning.

Who Project Manager.

When Begins at any time during the Build the Foundation or Project Planning phases and continues through the life of the project.

We'll talk about communications in this chapter on two tracks: First, disseminating information to groups of individuals through status reports, written documentation, messages, electronic media, etc. Second, the need to document project information for historical and reporting purposes. Both of these strategies should be outlined in the “Communications Plan” chapter of your Project Plan.

Keep the Right People Informed

It should be a major priority during your project to keep the lines of communication open among not only all Project Team members and the decisionmaking structure, but also with all end users and interested parties. There are different types of information needed depending on the group you are communicating with, and many ways to communicate the information.

First, determine the different groups who need project information, such as:

- The Steering Committee
- The Project Team
- Users and stakeholders not directly involved in project activities
- External agencies
- Funding bodies and granting agencies
- The public

Communications planning involves determining the information and communication needs of the stakeholders: who needs what information, when will they need it and how will it be given to them.
— PMBOK®

Second, for each of these groups, you must determine the **type** of information they need, the level of **detail** they need and **how often** they need it. For example, the Project Team members will *frequently* (weekly, or depending on deliverables, daily) need a great deal of *detailed* information (accomplishments, deadlines missed, problems, risks, issues, decision items) about the project.

The Steering Committee, however, will need *regularly scheduled* (monthly) *status reports* (major accomplishments, any challenges or setbacks that require their intervention) and *decision issues* (major issues that require policy, funding or operational decisions).

You should determine a consistent schedule and method(s) for communicating project status, information and updates. For some agencies, a departmentwide newsletter distributed on a monthly basis is sufficient. Others provide oral briefing reports, and yet others use email to share weekly project status and updates.



Creating a project Web site is one of the most effective methods of tracking the project accomplishments and issues, posting documents and making other stakeholders outside your agency aware of the project. Web site development for projects that include **multiple agencies and jurisdictions** is the best method for communicating among the agencies. Many agencies find that a combination of two or more of these methods works best.

You may want to build a chart like the one on the next page to help develop your communications plan with each group. You should involve representatives from each group to provide input and feedback as to the details of what each group will need, when, and in what format.

Group	Info Needed (Type)	Detail	Frequency	Communication Method
Steering Committee	Project status: Major accomplishments, problems or issues that need resolution	High-level	Monthly or during regularly scheduled project-related meetings	Written status report and oral report by the Project Manager during the meeting
Project Team Members	Detailed information about project schedule, activities, deadlines, plans, issues, risks and problems	Very specific	At least weekly	Variety: Email, written memos, oral reports during meetings, both scheduled and ad hoc (if reports are oral, all discussions must be captured in minutes)
Users	General updates about project activities, achievements and any variations in schedule	General	Monthly	Monthly newsletter or Web site (big events, activities, achievements may warrant a special email alert)
Public	General update about project activities, achievements and status	General	Monthly	Web site
External Agencies	General update about project activities, achievements and status	General	Monthly	Web site or Intranet
Funding Bodies	Project activities, accomplishments, deadlines, funds expended to date and related budget issues	Detailed with regard to funding	When reports are due or requested	Formal, written documentation

Get Input and Feedback

You should not only send out information, but also create a means for gathering information and feedback on the project. Examples of input/feedback procedures you can establish include Web-based forms, suggestion boxes, email messaging, chat sessions and online editing.

Establish a Paper Trail: Create the Project Filing Cabinet

It's not uncommon in law enforcement agencies for personnel to "inherit" a project from a predecessor. In career development, sworn personnel are often assigned on an annual or biannual basis to different units within a department, including those dealing with information technology. IT projects are often handed off mid-stream or before they've officially begun, and often change hands several times before they are complete. Nothing is worse than picking up a project mid-stream and having little or no documentation about what has been done so far, what has been promised, what reports have (or have not) been filed, and most importantly, how much money has been spent!

Key players in your technology initiative may come and go over the duration of the project. All, however, will be held accountable by parent organizations and elected officials. That's why *all* key players must commit to developing and maintaining accurate communication plans.

Part of your Project Plan is to create a strategy and methodology for documenting and maintaining files on project activities. You should have a method and organized means for keeping the following items:

1. **Project Records.** Any documentation regarding the project, including correspondence, reports, memos, grant applications and awards.
2. **Performance Reports.** Also known as status or project reports, these documents provide analysis on project scope, schedule, budget and performance on a regular basis to the stakeholders, funding agencies and other users/requestors.
3. **Change Requests.** As we've discussed in previous chapters, all changes (to scope, schedule, cost) must be handled through a formal and established *written* approval process. All change requests should be documented and kept in the project files.
4. **Problem Escalation and Resolution.** In Chapter 1 (page 36) we discussed creating a formal mechanism for how problems were to be resolved throughout the life of the project. You should keep documentation of the problems and their resolution in the project file cabinet.
5. **Formal Acceptance.** Include documentation on system acceptance testing (covered in Part V, Chapter 17) and the signed acceptance itself.
6. **Lessons Learned.** This is an extremely useful document that will assist you in future technology projects. Once your project is complete, take the time to document things that worked, things that didn't work and the lessons you learned from beginning to end. Don't think you will remember for the "next time." **Write it**

down! And remember, someone else may need to refer to this document for a new project they are planning.

7. **Project Archives.** At some point, all project records will need to be archived. Historical databases, financial records, etc. may require formal processing and archiving. A fully indexed project records set should be organized and stored at your agency.

The Project Web Site

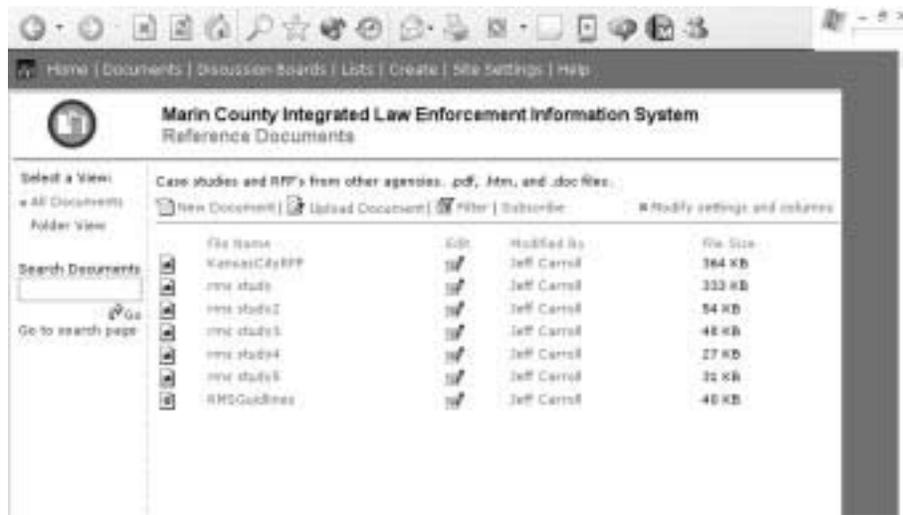
A project Web site is an excellent means for providing project documents and status reports to a wide variety of interested parties. If you develop a project Web site, make sure that you keep it up-to-date with the latest project news, activities and documents to keep visitors coming back. If developing your own Web site isn't possible, consider the use of a Microsoft SharePoint Web service, which provides a preformatted project management Web environment.

■ Marin County (CA) Integrated Law Enforcement Information System Project Web Site Screenshot #1

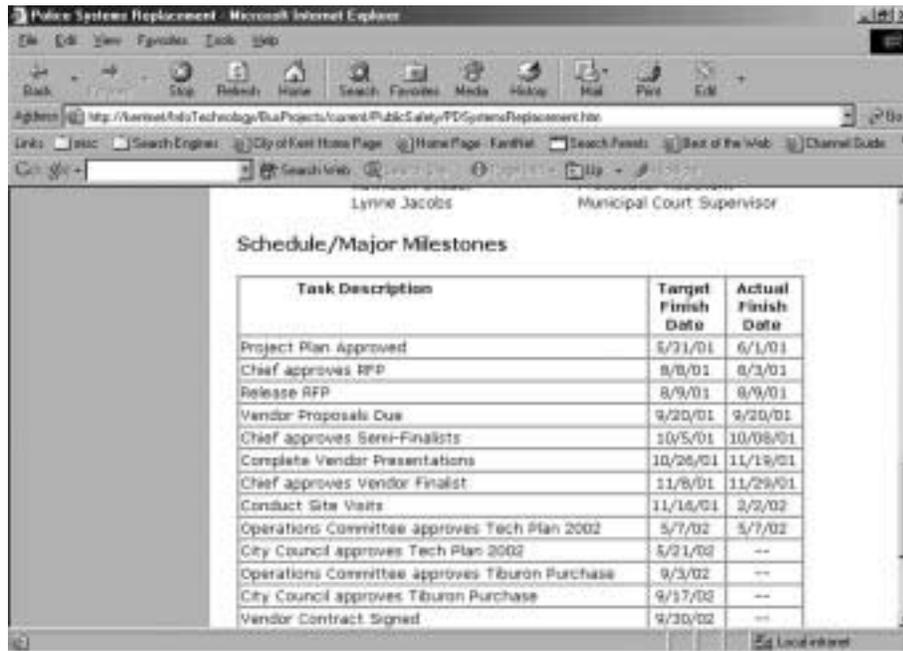
“
The project status Web page was by far the single most important tool to keep our vendor committed to the project timeline.”

”
— Ronald Glensor
Deputy Chief,
Reno (NV) Police
Department

■ **Marin County (CA) Integrated Law Enforcement Information System Project**
Web Site Screenshot #2



■ **Kent (WA) Police Department Police Systems Replacement Project**
Web Site Screenshot #1



PART III ASSIGNMENTS

EXECUTIVE SPONSOR

- Role**
1. Ultimate decisionmaker
 2. Provide oversight and guidance

- Project Planning Tasks**
1. Commit to structured project planning; endorse and sign Project Plan (Chapter 8)
 2. Be sensitive to change management (Chapter 8, page 117)
 3. Use the Project Plan (Part III)
 4. Approve final project scope and ANY changes made to scope from this point on (Chapter 9, page 125)
 5. Do not force a schedule on the Project Team if at all possible; instead, direct the team to develop a realistic timeline (Chapter 10, page 131)
 6. Review and approve project budget (Chapter 11)
 7. Make risk management planning a priority (Chapter 12, page 149)

STEERING COMMITTEE

- Role**
1. Provide knowledge and recommendations
 2. Remove project barriers
 3. Update/inform Executive Sponsor
 4. Review key documents

- Project Planning Tasks**
1. Endorse and sign Project Plan (Chapter 8)
 2. Review and approve scope statement, project objectives and Scope Management Plan (Chapter 9)
 3. Provide input to, review and approve project timeline (Chapter 10)
 4. Provide input as needed during budget development process (Chapter 11)
 5. Participate in risk management planning (Chapter 12)

PART III ASSIGNMENTS, CONTINUED

PROJECT MANAGER

- Role**
1. Coordinate all tasks and activities
 2. Keep aggressive meeting schedule to get the Project Plan completed
 3. Facilitate meetings
 4. Solicit input and approvals from the Steering Committee and Executive Sponsor
 5. Conduct research regarding elements of project plans and look at other agency plans
 6. Document all findings

- Project Planning Tasks**
1. Lead User and Technical Committees in detailed project scope definition (Chapter 9, page 121)
 2. Detail scope based on a variety of inputs (Chapter 9, page 122)
 3. Produce work breakdown structure (Chapter 9, page 123)
 4. Prepare Scope Management Plan (Chapter 9, page 125)
 5. Prepare the project timeline based on User and Technical Committee input (Chapter 10, page 129)
 6. Create a management plan that will control the project schedule (Chapter 10, page 132)
 7. Develop the project budget (Chapter 11)
 8. Lead meetings to identify project risks and their associated ratings and tolerance levels, and create the Risk Management Plan (Chapter 12)
 9. Develop and implement a communications plan to address information needs of various stakeholders (Chapter 13)

PART III ASSIGNMENTS, CONTINUED

USER COMMITTEE

- Role**
1. Provide input to Project Manager on scope, timeline, budget, risk, communications
 2. Conduct research within your own unit/area of responsibility to gather comprehensive information for the Project Plan
 3. Meet on a weekly basis with Project Manager during development of the plan

- Project Planning Tasks**
1. Assist in detailing project scope (Chapter 9, page 122)
 2. Define project objectives in terms of quality, time, cost, performance, reliability and functionality (Chapter 9, page 124)
 3. Help develop the project timeline by accurately estimating staff availability and capability in relation to the project (Chapter 10, page 131)
 4. Assist with development of project budget (Chapter 11)
 5. Participate in risk management planning (Chapter 12)

TECHNICAL COMMITTEE

- Role**
1. Provide input to Project Manager on scope, timeline, budget, risk, communications
 2. Conduct research within your own unit/area of responsibility to gather comprehensive information for the Project Plan
 3. Meet on a weekly basis with Project Manager during development of the plan

- Project Planning Tasks**
1. Assist in detailing project scope (Chapter 9, page 122)
 2. Define project objectives in terms of quality, time, cost, performance, reliability and functionality (Chapter 9, page 124)
 3. Help develop the project timeline by accurately estimating staff availability and capability in relation to the project (Chapter 10, page 131)
 4. Assist with development of project budget (Chapter 11)
 5. Participate in risk management planning (Chapter 12)

What's Next?

Procure the Technology Chapter 14

Contract With a Vendor Chapter 15