

for the project, and the *business need* presents the reasons prompting the project. The *business requirements* of the project refer to the business capabilities that the system will need to have, and the *business value* describes the benefits that the organization should expect from the system. *Special issues* are included on the document as a catchall category for other information that should be considered in assessing the project. For example, the project may need to be completed by a specific deadline. Project teams need to be aware of any special circumstances that could affect the outcome of the system.

The completed system request is submitted to the *approval committee* for consideration. This approval committee could be a company steering committee that meets regularly to make information systems decisions, a senior executive who has control of organizational resources, or any other decision-making body that governs the use of business resources. The committee reviews the system request and makes an initial determination, based on the information provided, of whether to investigate the proposed project or not. If so, the next step is to conduct a feasibility analysis.

Applying the Concepts at Tune Source

Throughout the book, we will apply the concepts in each chapter to a fictitious company called Tune Source. For example, in this section, we will illustrate the creation of a system request. Tune Source is a company headquartered in southern California. Tune Source is the brainchild of three entrepreneurs with ties to the music industry: John Margolis, Megan Taylor, and Phil Cooper. Originally, John and Phil partnered to open a number of brick and mortar stores in southern California specializing in hard-to-find and classic jazz, rock, country, and folk recordings. Megan soon was

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1-3 TOO MUCH PAPER, PART 1

The South Dakota Department of Labor, Workers' Compensation division was sinking under a load of paper files. As a state agency which ascertains that employees are treated fairly when they are injured on the job, the agency had a plethora of paper files and filing cabinets. If a person (or company) called to see the status of an injury claim, the clerk who received the call would have to take a message, get the paper file, review the status, and call the person back. Files were stored in huge filing cabinets and were entered by year and case number (for example, the 415th person injured in 2008 would be in a file numbered 08-415). But most callers did not remember the file number and would give their name and address and the date of injury. The clerk would look in a spiral notebook for the last name around the date that was given—and then find the file number to retrieve the folder. Some folders

were small—possibly documenting a minor cut or minor injury, and the employee was back to work after a brief treatment period. Other folders could be very large, with numerous medical reports from several doctors verifying the extent of a serious injury and treatment (such as an arm amputation). A digital solution was suggested—reports could be submitted online via a secure website. Medical reports could be submitted electronically, either as a pdf file or as a faxed digital file. This solution would also mean that the clerk taking the phone call could query the database by the person's name and access the information in a matter of seconds.

QUESTION:

Prepare a systems request for this project. Fill in as much as you can on the basis of the information provided.

invited to join the partnership because of her contacts and knowledge of classical music. Tune Source quickly became known as the place to go to find rare audio recordings. Annual sales last year were \$40 million with annual growth at about 3%–5% per year.

Background John, Megan, and Phil, like many others in the music industry, watched with alarm the rise of music-sharing websites like Napster, as music consumers shared digital audio files without paying for them, denying artists and record labels royalties associated with sales. Once the legal battle over copyright infringement was resolved and Napster was shut down, the partners set about establishing agreements with a variety of industry partners in order to offer a legitimate digital music download resource for customers in their market niche. Phil has asked Carly Edwards, a rising star in the Tune Source marketing department, to spearhead the digital music download project.

Tune Source currently has a website that enables customers to search for and purchase CDs. This site was initially developed by an Internet consulting firm and is hosted by a prominent local Internet Service Provider (ISP) in Los Angeles. The IT department at Tune Source has become experienced with Internet technology as it has worked with the ISP to maintain the site.

System Request At Tune Source, new IT projects are reviewed and approved by a project steering committee that meets quarterly. The committee has representatives from IT as well as from the major areas of the business. Carly's first step was to prepare a system request for the committee.

Figure 1-5 shows the system request she prepared. The project sponsor is Carly, and the business needs are to increase sales and provide a music download capability demanded by a very competitive marketplace. Notice that the need does not focus on the technology associated with the project. The emphasis is on the business aspects: increasing sales and maintaining a competitive position in the company's market.

In the system request, the project sponsor focuses on describing his or her vision of the business requirements at a very high level. Carly has expressed a clear vision of how this system will affect Tune Source: sales of individual music downloads, revenue from customer subscriptions, sales from cross-selling of CDs, and sales of music download gift cards. Carly acknowledges customer demand for this capability and also recognizes the need to respond to this demand in order to retain the business of its loyal customer base.

The estimates of tangible value were difficult to develop, since this venture is completely new to Tune Source. To prepare for this, Carly had several of her staff members conduct both an in-store customer survey and an online customer survey to assess the customers' interest in individual music downloads, subscription programs, and gift cards. The surveys also attempted to gauge the customers' price sensitivity for these offerings.

From the survey results, Carly and her staff developed a range of sales projections for the various revenue streams: a high-level estimate, a medium-level estimate, and low-level estimate. They also developed probability assessments for each of these outcomes, settling on a 25% likelihood for the high-level estimate, a 60% likelihood for the medium-level estimate, and a 15% likelihood for the low-level estimate. Based on the sales projections and the probability estimates, a weighted average estimated sales figure was computed for each revenue stream.

System Request—Digital Music Download Project
Project Sponsor: Carly Edwards, Assistant Vice President, Marketing
Business Need: This project has been initiated to increase sales by creating the capability of selling digital music downloads to customers through kiosks in our stores, and over the Internet using our website.
Business Requirements: Using the Web or in-store kiosks, customers will be able to search for and purchase digital music downloads. The specific functionality that the system should have includes the following: <ul style="list-style-type: none"> • Search for music in our digital music archive. • Listen to music samples. • Purchase individual downloads at a fixed fee per download. • Establish a customer subscription account permitting unlimited downloads for a monthly fee. • Purchase music download gift cards.
Business Value: We expect that Tune Source will increase sales by enabling existing customers to purchase specific digital music tracks and by reaching new customers who are interested in our unique archive of rare and hard-to-find music. We expect to gain a new revenue stream from customer subscriptions to our download services. We expect some increase in cross-selling, as customers who have downloaded a track or two of a CD decide to purchase the entire CD in a store or through our website. We also expect a new revenue stream from the sale of music download gift cards. <p>Conservative estimates of tangible value to the company include the following:</p> <ul style="list-style-type: none"> • \$757,500 in sales from individual music downloads • \$950,000 in sales from customer subscriptions • \$205,000 in additional in-store or website CD sales • \$153,000 in sales from music download gift cards
Special Issues or Constraints: <ul style="list-style-type: none"> • The marketing department views this as a strategic system. The ability to offer digital music downloads is critical in order to remain competitive in our market niche. Our music archive of rare and hard-to-find music is an asset that is currently underutilized. • Many of our current loyal customers have been requesting this capability, and we need to provide this service or face the loss of these customers' business. • Because customers have a number of music download options available to them elsewhere, we need to bring this system to market as soon as possible.

FIGURE 1-5
System Request for Tune Source

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1-4 CREATE A SYSTEM REQUEST

Think about your own university or college and choose an idea that could improve student satisfaction with the course enrollment process. Currently, can students enroll for classes from anywhere? How long does it take? Are directions simple to follow? Is online help available?

Next, think about how technology can help support your idea. Would you need completely new technology? Can the current system be changed?

QUESTION:

Create a system request that you could give to the administration that explains the sponsor, business need, business requirements, and potential value of the project. Include any constraints or issues that should be considered.

FIGURE 1-6
Sales Projections for Tune Source
Digital Music Download Project

Sales Projections				
	Individual Downloads	Subscriptions	Cross-Selling of CDs	Gift Cards
High-level estimate (prob. = 25%)	\$900,000	\$1,100,000	\$250,000	\$180,000
Medium-level estimate (prob. = 60%)	750,000	950,000	200,000	150,000
Low-level estimate (prob. = 15%)	550,000	700,000	150,000	120,000
Weighted average expected sales	\$757,500	\$950,000	\$205,000	\$153,000

For example, for individual downloads,

$$\begin{aligned}
 \text{Expected sales} &= (900,000 * .25) + (750,000 * .60) + (550,000 * .15) \\
 &= 225,000 + 450,000 + 82,500 \\
 &= 757,500
 \end{aligned}$$

These projections are summarized in Figure 1-6.

After analyzing the survey results, Carly and her staff were confident that the sales projections and probability estimates were as accurate as they could make them this early in the project. The completed system request is shown in Figure 1-5.

Steering Committee Approval Carly Edwards presented the system request for the digital music download project to the Tune Source project steering committee at its next meeting. Response to the request was uniformly positive. The strong interest in the project by John, Megan, and Phil, the company's top executives, helped to spur the committee's rapid approval of the project. Following approval of the system request, Jason Wells, a senior systems analyst in the IT department, was assigned to work with Carly to develop a preliminary feasibility analysis for the project.

FEASIBILITY ANALYSIS

Once the need for the system and its business requirements have been defined, the approval committee may authorize the systems analyst to prepare a more detailed business case to better understand the proposed information system project. *Feasibility analysis* guides the organization in determining whether to proceed with the project. Feasibility analysis also identifies the important *risks* associated with the project that must be managed if the project is approved. As with the system request, each organization has its own process and format for the feasibility analysis, but most include techniques to assess three areas: technical feasibility, economic feasibility, and organizational feasibility (see Figure 1-7). The results of evaluating these three feasibility factors are combined into a *feasibility study* deliverable that is submitted to the approval committee at the end of project initiation.

You might wonder at the omission of the element of time as a risk factor for the project. While the time available for a project can certainly be a concern, we consider time to be a project management issue. We will discuss project management strategies that can be used when time is tight in Chapter 2.