

Chapter 7: Budget Planning

Courts usually must perform at least some preliminary budget analysis as a part of investigating the feasibility of implementing electronic filing. Once the decision has been made to pursue this application of technology, the real budget planning begins. The complexity of the budget planning process depends upon many factors, including:

- The size of the court.
- The extent, quality and capacity of the current technology infrastructure.
- The scope of application for electronic filing across different divisions and case types.
- The capabilities and adaptability of the current automated case management system.
- The balance between technology services delivered directly by the court and services outsourced to a third party.

The purpose of this chapter is to help court managers identify the components necessary to include in the budget planning process and provide a budget-planning tool, in the form of an electronic spreadsheet, to assist them. The discussion assumes that the court already has a functioning case management system, as this is a precursor to any consideration of electronic filing. In addition, workstations, printers, network cabling and other components exist and are adequate to handle the case management system, office automation or desktop productivity applications, and other technology applications installed in the court. In other words, this chapter focuses on the budget planning process necessary to address the addition of electronic filing technology to an existing base of hardware and software.

The existence of a case management system and an appropriate technology infrastructure to support it, however, does not mean the court's technology is adequate to permit simply plugging in an electronic filing component. Case management software

will require upgrading, for example, to link tightly with a document management system and the electronic filing system that delivers documents to it. Additional workstations and upgraded processors also may be necessary. The local-area network probably will require upgrading as well to handle the increased traffic and volume of data passing through it. Consequently, this chapter does address those prerequisite and concurrent improvements that court managers must take into consideration in conjunction with an electronic filing project.

Budget Planning Worksheet

There are numerous ways to organize the cost categories in planning for a technology project. The worksheet that forms the core of this discussion is structured around three broad categories: organizational readiness, upgrade of the existing technology infrastructure as needed to support electronic filing, and implementation of the fundamental electronic filing component or “front end” of the court’s technology system. Each of these broad categories is subdivided into two types of costs. Equipment, software, materials, services, utilities, and facilities are one type of expense. The other reflects the time and effort required for planning and implementation. It is referred to in the worksheet as “human resources” and includes salary, fringe benefits and other expenses associated with all court staff involved in the project.

Furthermore, within the category of upgrading the existing technology, separate sets of costs are identified for major components that must be upgraded or added: the case management system, a document management system, the general network infrastructure, and the court’s Internet capabilities. Finally, the worksheet provides for estimating the costs for each of the first three years. Subtotals are accumulated for the two types of

costs (human resources and all costs that are not human resources costs) for each year, and then the total cost for each is shown on an annual basis.

The worksheet is designed as a flexible tool that can help court and technology managers think through the budgeting process. It is not intended to be inclusive of all cost factors or ideally suited for any particular situation. Every court has a different set of circumstances to consider in planning for electronic filing. There is tremendous variation from court to court in the type of computer hardware and software installed, the age and capabilities of the systems, the number of users, the approach to buying or building new applications, the source of funding and procedures that must be followed, and the organization and capabilities of the technical staff. Consequently, some of the budget items may not be needed, while others may need to be added.

The worksheet also is one-sided; that is, it encompasses costs only. As discussed throughout the monograph, when courts implement electronic filing, they can anticipate some costs savings or cost avoidance to help offset the one-time and ongoing expenses. Although the worksheet is concerned only with the expenses for which funding must be allocated, courts should identify potential savings as part of their long-range planning and, if necessary, to justify the expense of implementation.

Potential cost savings span a range of categories, many of which are applicable to the majority of courts. As discussed in Chapter 5, for example, reducing the necessity for physical handling of paper files eliminates many labor-intensive steps in processing cases, freeing up staff time for other duties. While such technology projects seldom result in laying off workers (and may even require the temporary addition of staff), they can reduce sharply the need for future staffing increases commensurate with rising workloads. A second area of savings is the reduction in storage space needed to house

physical files. Even with additional hardware requirements, electronic files consume only a fraction of the expensive square footage needed for paper records. A third area of savings is the simple result of purchasing less paper and fewer file folders, shelves and file cabinets. Paper documents generate more paper because of the need to make copies for each person who needs access, while electronic documents can deliver simultaneous access to everyone. Furthermore, paper costs increase steadily over time, whereas computer storage costs decrease constantly, often at an astonishing rate. When electronic filing is fully implemented and integrated with case management software, additional savings result from eliminating some of the manual data entry now necessary to update the court's database as new documents are filed.

Readers are encouraged to view the worksheet as a starting point from which to develop one or more budgeting tools more specifically suited to the needs of their own courts and the approach to electronic filing they choose. Budget planners may wish to add cost savings categories or create worksheets specifically for cost savings.

Alternatively, they may decide to incorporate projected savings in the amounts they enter in the cost categories already appearing on the worksheet.

A printed version of the worksheet appears below. The remainder of the chapter is devoted to a brief explanation of each cost component or line item on the worksheet, with respect to its implications for the budget. The items are discussed in the order in which they appear on the worksheet. Chapter 6 describes the technology components in more detail, and Chapter 8 covers the major items included in the worksheet in terms of how they fit into the overall implementation process.

Electronic Filing Budget Planning Worksheet			
	Year 1 Costs	Year 2 Costs	Year 3 Costs
Organizational Readiness			
Educational materials, services, conference fees, travel, etc.			
Consulting fees			
Other expenses			
Human Resources			
Preliminary education and training			
Initial planning activities			
Develop conceptual design and implementation plan			
Other activities			
Upgrade of Existing Technology			
Case Management System			
Application software replacement or upgrade			
Server hardware upgrades			
Client/PC upgrades			
Contractor services			
Hardware maintenance			
Other expenses			
Human Resources			
Develop and implement additional functions			
Perform or manage hardware upgrades			
Prepare and deliver training, documentation, user support			
Court staff time for training			
Other activities			
Document Management System			
Document management software purchase			
Document server hardware			
Client/PC hardware upgrade or purchase			
Peripheral hardware/software (e.g., scanners, monitors)			
Contractor services			
Hardware maintenance			
Other expenses			
Human Resources			
Staff time for acquisition and integration			
Perform or manage hardware upgrades or installations			
Prepare and deliver training, documentation, user support			
Court staff time for training and parallel testing			
Other activities			
General Network Infrastructure			
Upgrade cabling, hubs, routers, etc. for increased traffic			
Upgrade server processor, memory, disk capacity			
Upgrade network OS, monitoring, and security software			
Upgrade modems and phone lines for local dial-up			
Implement or upgrade network fax capability			
Implement or upgrade e-mail and office productivity software			
Upgrade system backup capabilities			
Uninterruptible power supplies (UPS)			
Upgrade PCs and monitors (if not already covered above)			

Additional public terminals for case information access			
Additional conditioned space for components or staff			
Hardware maintenance			
Other expenses			
Human Resources			
Planning, analysis, and management of network upgrades			
Technical staff time to accomplish network upgrades			
Other activities			
Internet Capabilities			
Servers (Web, e-mail, proxy, etc.)			
Additional communications hardware and software			
Server software and Web development tools			
Browser software and other end-user tools			
High-speed phone lines (ISDN, T1, etc.)			
Security(firewall hardware/software, etc.)			
Internet service provider fees			
Hardware maintenance			
Consulting fees			
Other expenses			
Human Resources			
Planning and mgmt of Internet implementation/upgrade			
Staff time to implement or upgrade Internet components			
Staff for webmaster and Internet technician positions			
Prepare and deliver training, documentation, user support			
Court staff time for training			
Other activities			
Implementation of E-Filing Component			
Separate e-filing server with fault-tolerance or redundancy			
Uninterruptible power supplies (UPS)			
Backup capabilities for E-filing transactions			
E-filing application software or interface with service provider			
User billing and accounting software, if separate			
Consulting fees			
Other expenses			
Human Resources			
"Marketing" and education for legal community			
Detailed planning and development of court procedures			
Planning, analysis, and management of implementation			
Technical staff time for installation and testing of components			
Training and support of court staff and attorney users			
Court staff time for training			
Court and technical staff time for parallel testing			
Billing and accounting (if additional procedures)			
Other activities			
TOTALS			
Equipment, Software, Services, and Other Costs	0	0	0
Human Resources Costs	0	0	0
Grand Total Costs	\$0	\$0	\$0

Description of Worksheet Fields

Organizational Readiness

Educational materials, services, conference fees, travel, etc.

This entry covers a range of hard costs associated with preparing court officials and staff to move forward with electronic filing. Judges or managers may wish to visit other jurisdictions that have implemented electronic filing, attend seminars and educational conferences, or obtain books, videos or other information to use within the court.

Consulting fees

Consultants may be engaged to help with initial planning activities, conduct a needs assessment, or to provide education about electronic filing.

Other expenses

Any other non-personnel costs associated with preparing the organization should be recorded here.

Human Resources—the following items are personnel-related costs resulting from staff time expended on organizational readiness activities.

Preliminary education and training

This entry covers costs for staff time spent in preparing, conducting or attending educational and training activities.

Initial planning activities

Costs for time spent on planning tasks, including meetings and deskwork, should be recorded.

Develop conceptual design and implementation plan

This item shows costs for staff time involved in either performing or managing the development of analyses, designs, implementation plans, etc.

Other activities

Personnel costs for all other activities associated with organizational readiness should be entered here.

Upgrade of Existing Technology

Case Management System

Application software replacement or upgrade

This entry relates to the non-personnel costs associated with upgrading the case management system software to integrate it with an electronic filing front end. If

extensive changes will be needed to a very old system, this may present the opportunity to replace the software with a new system.

Server hardware upgrades

This category can be adapted as needed for the computer platform used to support the case management system in each court. For example a series of network server PCs may be used in one court, while the database and programs may reside on a midrange computer in another court.

Client/PC upgrades

Individual workstations may need upgrading to handle new or improved case management software as well as to support electronic documents more effectively. Additional units may also be needed as fewer operations rely on paper.

Contractor services

Consultants, contract programmers, or software vendor services may be required to accomplish the upgrades to the case management system.

Hardware maintenance

The estimated cost for hardware maintenance contracts, average equipment service costs or the cost of additional hardware held in reserve for replacement purposes should be entered here.

Other expenses

Any other non-personnel costs associated with upgrading the case management system can be recorded here.

Human Resources—the following items are personnel-related costs resulting from staff time expended on upgrading the case management system.

Develop and implement additional functions

This entry covers the time spent by technical staff and other court employees to manage or perform various tasks needed to upgrade the case management software.

Perform or manage hardware upgrades

Staff time associated with planning, acquiring, installing, and testing hardware upgrades for the case management system can be entered in this item.

Prepare and deliver training, documentation, user support

Staff time expended for up-front preparation or acquisition of training materials and programs, conducting training of court staff, and preparing user documentation should be estimated here. The estimate should include staff costs for help desk operation and other ongoing user support to the extent that these costs can be attributed to the software upgrades.

Court staff time for training

In addition to the time expended by the technical staff or others responsible for providing the training, the cost of the time required for the users to receive training should be accounted for. Also, if technical staff must be trained on new software tools or maintenance of new system functions, their time should be reflected here.

Other activities

Personnel costs for all other activities associated with upgrading the case management system should be estimated here.

Document Management System**Document management software purchase**

Most courts elect to purchase, rather than build, the document management software needed to complement traditional case management functions. All software-related costs for this component should be estimated here.

Document server hardware

A separate document server is usually installed during this upgrade process, or dedicated disk drives may be added to a mid-range or mainframe environment to handle the document management system. All such costs should be recorded here.

Client/PC hardware upgrade or purchase

PC workstations should be assessed to determine if they have adequate processor power, local hard disk capacity and adequate video graphics performance suitable for document management use. Costs for upgrades and replacements should be estimated here.

Peripheral hardware/software (e.g., scanners, monitors)

This entry can be used to capture the cost of high-resolution monitors, scanners, optical storage, or other types of peripheral equipment needed for the document management system.

Contractor services

Consultants, contract programmers, or software vendor services may be required to implement the document management system.

Hardware maintenance

The estimated costs for hardware maintenance contracts, average equipment service costs, or the cost of additional hardware held in reserve for replacement purposes--to the extent that those costs stem from the document management system--should be entered here.

Other expenses

Any other non-personnel costs associated with implementing the document management system can be recorded here.

Human Resources—the following items are personnel-related costs resulting from staff time expended on implementing or upgrading the document management system.

Staff time for acquisition and integration

This entry covers the time spent by technical staff and other court employees to manage or perform the various tasks needed to implement the document management software.

Perform or manage hardware upgrades or installations

Staff time associated with planning, acquiring, installing, and testing hardware upgrades or additions needed for the document management system can be entered in this item.

Prepare and deliver training, documentation, user support

Staff time expended for up-front preparation or acquisition of training materials and programs, conducting training of court staff, and preparing user documentation should be estimated here. Also included should be staff costs for help desk operation and other ongoing user support, to the extent that these costs can be attributed to the document management system.

Court staff time for training and parallel testing

In addition to the time expended by the technical staff or others responsible for providing the training, the cost of the time required for the users to receive training should be accounted for. Also, if technical staff must be trained on new software tools or maintenance of new system functions, their time should be reflected here. Finally, initial implementation likely will require maintaining parallel paper-based procedures. The cost of this temporary additional effort should be estimated and entered here.

Other activities

Personnel costs for all other activities associated with implementing the document management system should be estimated here.

General Network Infrastructure

Upgrade cabling, hubs, routers, etc. for increased traffic

This item reflects the cost of upgrading the network topology and associated hardware components. With the shift to document management functions and subsequent electronic filing, the network must be capable of supporting peak traffic loads without substantially degrading performance and user response.

Upgrade server processor, memory, disk capacity

New high-performance network servers may have to be purchased, or existing servers may require upgrading to handle the increased workload and provide more reliability.

Upgrade network OS, monitoring and security software

Along with hardware components, network software should be added or updated to achieve the required level of performance, reliability and security. Monitoring the status of network performance and maintaining network security, which become critical with primary reliance on electronic data and communication, requires specialized software tools.

Upgrade modems and phone lines for local dial-up

As court officials and staff move into the electronic world, it is important to support e-mail and access to court information through adequate local connectivity. A sufficient bank of high-speed modems will ensure that staff can connect from off site. If dial-up access is provided to the bar or other outside users, the communications interface should be adequate to meet the total demand.

Implement or upgrade network fax capability

The network should be equipped to permit efficient fax transmission directly from electronic versions of documents and other information sources. Similarly, the network should be capable of receiving incoming fax transmission for routing or storage as an imaged document. The cost of fax hardware and software components should be estimated here.

Implement or upgrade e-mail and office productivity software

If courts hope to move into a comprehensive electronic environment, they must equip the staff with a current set of productivity tools. Costs should be developed for network versions of powerful office suite products that provide word processing, spreadsheet, database, calendar, e-mail, and other functions.

Upgrade system backup capabilities

Integrity and availability of electronic documents and databases must be insured through the use of dependable and efficient backup capabilities. Network downtime should be minimized, and recovery of deleted or damaged data should be as simple and reliable as possible. The estimated costs for hardware and software needed to provide the desired level of backup capabilities should be entered here.

Uninterruptible power supplies (UPS)

Servers and other critical network components should be protected from power outages, unacceptable voltage drops and surges through the installation of individual UPS units for each device or attaching them to circuits connected to a large-scale UPS. The cost for the UPS hardware, along with the accompanying software needed to perform an orderly automatic shutdown process, should be estimated here.

Upgrade PCs and monitors (if not already covered above)

All user workstations and monitors should be brought up to the standard required to ensure that staff can work effectively with all applications. Any associated costs not already attributed to case management or document management system requirements should be entered here.

Additional public terminals for case information access

As the court moves from paper to electronic operation, managers must ensure that adequate numbers of workstations are provided for public use. Because many of these workstations will be used by most people only for occasional inquiries, there may be an opportunity to employ some workstations that have trickled down from staff being equipped with newer hardware. Estimates should be developed for any new equipment, upgrades to existing equipment, and additional cabling or other components that will be needed to provide public access in the courthouse.

Additional conditioned space for components or staff

Gearing up the technology infrastructure may involve additional servers, scanners, printers, and, possibly, technical staff. New equipment and staff may require additional space and environmental controls, along with mounting racks and office furnishings. This line item can be used to enter any quantifiable facilities costs resulting from the technology upgrades.

Hardware maintenance

The estimated costs for hardware maintenance contracts, average equipment service costs, or the cost of additional hardware held in reserve for replacement purposes should be entered here if attributable to the general network upgrades.

Other expenses

Any other non-personnel costs associated with upgrading the general network infrastructure can be recorded here.

Human Resources—the following items are personnel-related costs resulting from staff time expended on implementing or upgrading the general network.

Planning, analysis and management of network upgrades

This item is for the cost of staff time expended managing the overall process of upgrading the network infrastructure, as well as conducting the planning and analysis necessary to determine what must be done.

Technical staff time to accomplish network upgrades

In contrast to the above item, this line reflects the cost of staff time spent on installing, configuring and testing new components.

Other activities

Personnel costs attributable to all other activities associated with upgrading the general network infrastructure should be estimated here.

Internet Capabilities**Servers (Web, e-mail, proxy, etc.)**

This line item captures the cost of Internet server hardware. The extent of hardware required will be determined by a number of factors, such as how many users need to be

supported, how the different functions (e.g., Web, FTP, listservs, general e-mail, and security) are to be distributed, and what type of Internet service provider is being used.

Additional communications hardware and software

In addition to the servers, costs must be figured for any communications hardware and software needed for the Internet capabilities.

Server software and Web development tools

This line is for the cost of the software that runs on the different types of servers, as well as software tools needed to develop and manage a Web site.

Browser software and other end-user tools

In addition to the software described above, all users must have Web browser software installed on their PCs if they are to access the World-Wide Web. Some non-technical court staff also may be assigned responsibility to provide Web content. These individuals will need appropriate software tools (e.g., Microsoft FrontPage) or extensions to office productivity tools that permit conversion of documents and other files to HTML pages. While some browser software is free or built into the operating system, estimates should be developed for the cost of other tools needed to meet the uses planned for the Internet capabilities.

High-speed phone lines (ISDN, T1, etc.)

Installation costs, fixed monthly fees and anticipated usage charges for upgraded communications lines should be entered here. It is imperative to provide sufficient bandwidth to meet the expected demand for Internet traffic.

Security (firewall hardware/software, etc.)

Establishing a secure Internet capability should be a top priority for courts preparing for electronic filing. This involves installing a robust firewall between the court's computer system and the Internet connection. Costs for all security components, both hardware and software, should be added here.

Internet service provider fees

Many different arrangements are possible for connecting the court to the Internet backbone, depending upon the size of the court, the technical capabilities, local phone service characteristics, and providers in the area. Startup costs and monthly fees should be estimated and entered on this line.

Hardware maintenance

The estimated costs for hardware maintenance contracts, average equipment service costs or the cost of additional hardware held in reserve for replacement purposes should be entered here if attributable to the Internet technology.

Consulting fees

The court may need the services of a consultant to determine the best implementation strategy or to advise court staff on components or configurations. Fees for all such services should be entered here.

Other expenses

Any other non-personnel costs associated with implementing or upgrading the Internet capabilities can be recorded here.

Human Resources—the following items are personnel-related costs resulting from staff time expended on implementing or upgrading the Internet technology.

Planning and management of Internet implementation/upgrade

This line is for the cost of staff time to plan and manage the implementation or upgrade of the court's Internet capabilities. Activities such as meetings with court managers and staff to determine how the Internet should fit into the court's technology strategy, working with vendors to obtain costs for hardware, software, and services, designing security strategies, exploring other Web sites for ideas, and orchestrating the work of technical staff and consultants throughout the implementation or upgrade process should be included.

Staff time to implement or upgrade Internet components

This line should cover time spent by technical staff to install, configure and test components.

Staff for webmaster and Internet technician positions

This item can be used to enter costs associated with additional positions required for the Internet. If a portion of existing staff's time is allocated to these new tasks, those proportionate costs should be entered here.

Prepare and deliver training, documentation user support

In many courts, implementation of new or upgraded Internet technology may require additional training of end users and technical staff as well. The cost of employee time to provide such training should be entered here.

Court staff time for training

To the extent that time spent receiving training or acquiring self-training through documentation, tutorials or experimentation can be measured or estimated, the associated costs should be entered here.

Other activities

Personnel costs attributable to all other activities associated with implementing or upgrading the Internet capabilities should be estimated here.

Implementation of E-Filing Component**Separate e-filing server with fault-tolerance or redundancy**

Hardware costs for a dedicated e-filing server should be calculated and entered on this line. It is essential to provide a secure, reliable connection for electronic filing users that is always available. Documents submitted electronically must be protected from

damage or loss, as well as being available without delay for processing by court staff or automated procedures. For these reasons e-filing servers may have built-in fault-tolerant technology or some redundancy of components that makes them more costly than ordinary servers.

Uninterruptible power supplies (UPS)

E-filing servers and other components should be protected by UPS units to ensure that they are not knocked out of service by power problems. The cost of these devices should be entered here.

Backup capabilities for E-filing transactions

Enter the cost of any backup devices dedicated to the e-filing system components storing incoming electronic documents and transactions.

E-filing application software or interface with service provider

The purchase cost of e-filing software or any software required to connect with e-filing service providers should be entered here. If the court develops its own software, those costs should be recorded below as human resources costs.

User billing and accounting software, if separate

If the court handles the billing and accounting functions associated with e-filing, additional software may have to be purchased to perform these functions. If existing case management accounting software can be used to handle these functions, then there may be no separate costs. Financial software developed in house for this purpose should be recorded as a human resources expense.

Consulting fees

The court may wish to hire a consultant to help with planning and implementing electronic filing. Fees for such services should be entered on this line.

Other expenses

Any other non-personnel expenses associated with implementing the e-filing system should be entered here.

Human Resources—the following items are personnel-related costs resulting from staff time expended on activities related to implementation of electronic filing.

"Marketing" and education for legal community

Active participation by the local bar is essential from the beginning of any e-filing project. Court staff will need to spend adequate time promoting the project, educating the legal community about it, and securing their involvement in planning and implementation tasks.

Detailed planning and development of court procedures

Beyond the preliminary planning phase, court staff must plan, develop and document the detailed procedures whereby the electronic filing technology is to be used. This line should reflect the cost of those activities.

Planning, analysis and management of implementation

This line should capture the cost of the time expended by court and technology managers and analysts in directing the implementation of the e-filing technology, determining the components to be used and designing the functions and interfaces.

Technical staff time for installation and testing of components

Costs for staff to install, test and put into operation all of the hardware and software components for the e-filing front end should be entered here.

Training and support of court staff and attorney users

This item shows the personnel costs associated with developing and delivering training for court staff and the attorney users, as well as providing ongoing support to all users.

Court staff time for training

The estimated cost for the time court staff spends to receive training should be entered here.

Court and technical staff time for parallel testing

As part of the initial implementation of e-filing, most courts will conduct tests of the new procedures and operate in parallel with the paper system for some period of time. The extra time spend on these activities should be estimated and the corresponding human resources costs entered here.

Billing and accounting (if additional procedures)

To the extent that additional effort is expended on billing and accounting for the e-filing users, those costs should be shown here.

Other activities

Personnel costs attributable to all other activities associated with implementing the e-filing capabilities should be estimated here. An example of a possible additional cost is the cost of converting existing documents to some form of electronic document. When a court switches over to electronic filing, it may decide that all active cases should be converted to avoid a dual medium for documents in a single case. Staff time spent retrieving, preparing, scanning, verifying, and indexing those documents must be included as a human resource cost.

TOTALS**Equipment, Software, Services, and Other Costs**

This line is the total of all costs other than human resources. It reflects the sum of all line items for hardware, software, consulting fees, travel, training materials, conference fees, phone lines, and other services.

Human Resources Costs

This line is the total cost of human resources across all categories. It is the sum of each line item shown under the Human Resources subheadings.

Grand Total Costs

This line reflects the total estimated cost of the project for each year. It is the sum of the above two subtotals.

