



How to Prepare a Budget for an Enterprise Resource Planning Project: 10 Critical Steps

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You have been given the daunting task of creating the budget for your new Enterprise Resource Planning (ERP) project. No doubt the task seems overwhelming. Just deciding where to start can keep you awake at nights.

Many Methods – 10 Critical Steps

Organizations have many methods available for creating project budgets for their ERP implementation, including commercial software and the use of basic spreadsheets. The choices for processes can seem overwhelming themselves. No matter which method you choose, the process will require careful planning to ensure that you have the information needed and you gain buy-in from your project's significant stakeholders.

Following are ten critical proven steps and checklists that Collegiate Project Services has used successfully to help organizations develop ERP project budgets:

1. Clearly define the budget scope and continuously communicate.
2. Define the cost components of the ERP implementation.

3. Identify primary software costs.
4. Identify third-party software needs.
5. Identify possible non-ERP related software needs.
6. Identify the costs of consultants.
7. Plan for an implementation "War Room."
8. Plan for hardware equipment storage needs.
9. Do not underestimate miscellaneous costs.
10. Define your budget's critical success factors.

#1 Clearly Define the Budget Scope and Continuously Communicate

All organizations struggle with determining the costs of their ERP implementations. An accurate, defined, and agreed-upon budget helps organizations set clearer expectations and more efficiently manage and implement their projects.

The first step is to define the budget scope. Ask questions like "what will" or "what won't be included in the budget." Include the significant stakeholders – those people in the organization who have a major stake in the project or its outcomes – to help you develop the criteria for defining the budget scope.

Once the budget is developed, communicate the budget and continue open discussions with your stakeholders throughout the life of the project.

#2 Define the Cost Components of the ERP Implementation

The cost components for an ERP implementation fall into two categories: direct costs and indirect costs.

Direct costs include costs directly attributable to the implementation including:

- ◆ Primary Software
- ◆ Third Party Software; ERP and Non-ERP
- ◆ Consulting

Indirect costs are associated with the project routinely attributed to existing budgets and could include:

- ◆ Costs to establishing a “war room”
- ◆ Equipment storage
- ◆ New employee compensation
- ◆ Celebration funds
- ◆ Training and travel expenses
- ◆ ERP conference attendance
- ◆ Office and clerical supplies
- ◆ Budget management and audit costs
- ◆ Control consultants hours
- ◆ Hardware purchasing
- ◆ Network costs
- ◆ 5% OOPS factor



#3 Identify Primary Software Costs

Following is a checklist (Table 1) to help you plan for the software items that may need to be included when determining your ERP budget. Note, that some vendors combine product lines, and may name similar products differently.

List each product separately	Recurring Cost Yes/No	In ERP Budget Yes/No	Funding Source
Advancement/Contributor Relations			
Student: Admissions, Financial Aid, etc.			
Finance: Accounts Payable, Purchasing etc.			
Human Resource/Payroll			
Self Service/Web Portal			
Data Store/Warehouse			
Database Software			

#4 Identify Third Party Software Needs

Following is a checklist (Table 2) with examples of third party products you may consider for use with the primary ERP software. These products are listed by functionality and not by industry name.

Most sellers of ERP software suggest that their products will work without additional software. However, we have found through experience that most buyers of ERP software also purchase various products to enhance the use of their ERP software. Organizations that have not considered these additional software packages when creating their original budgets have been surprised by these potentially high and unforeseen software costs.

Table 2. Third Party Software			
List each product separately	Recurring Cost Yes/No	In ERP Budget Yes/No	Funding Source
Credit card processing			
Housing/residence management			
Scheduling rooms and resources			
Parking system			
Library system			
Imaging system			
Printing solution			
Web server security certificate			
Address verification/cleansing			
Asset management software			
Reporting solution			
Cobol compiler			
Performance monitoring tool			
Antivirus			
Developer tools			
Back-up, monitoring, and data protection			
Performance load testing			
Performance monitoring			
Disaster recovery			
Process scheduling			
Time capturing, clock-in and clock-out			
Windows terminal client server access license			
Data mining			
Electronic/swipe card door lock			
Single sign-on to multiple systems			

#5 Identify Possible Non-ERP Related Software Needs

Table 3 lists common software used in performing routine tasks. Some of these software packages may be important to your organization to ensure effective and efficient day-to-day work is completed throughout the implementation. Your organization may already have site licenses which will require no further expense.

Table 3. Non-ERP Software			
List each product separately	Recurring Cost Yes/No	In ERP Budget Yes/No	Funding Source
Document storage			
Enterprise wide calendar			
Project Management			
Diagram/process flow			
.pdf creator			
Spread sheet creator			
Word processing			
.zip file creator			
Antivirus			

#6 Identify the Costs of Consultants

Implementing an ERP system without expertise is almost impossible. This critical step forces you to anticipate and prepare for the use of consultants and subject matter experts to facilitate a more effective implementation.

Some software purchases include consultant costs for installation in the purchase price. Usually this arrangement includes consulting up to a certain number of hours.

Other products will add costs for installation or for installation certification. Be careful regarding self installation with no certification from the vendor. Support for the product will always be in question when the installation is without certification.

Include all of the potential consultants in your budget, and remember to be prepared for their arrival so you can maximize their productivity while on site.

Table 4. Consultants			
List each product separately	Recurring Cost Yes/No	In ERP Budget Yes/No	Funding Source
Hardware installation expert			
Software installation expert			
System administrator			
Data Base administrator			
Technical trouble shooter			
Functional product expert # 1			
Functional product expert # 2			
Developer			
Trainer			
Analyst			
Network engineer			
Database tuner			
Project Manager			
Vendor Account Representative			

#7 Plan for an Implementation “War-Room”

An ERP implementation team “war room” provides a great place for teams to gather and work as cohesive units in planning for and implementing the project.

Finding a designated team space where employees and consultants can meet helps isolate team members in an environment where they can focus on the project tasks at hand. Having a dedicated space also saves time in finding locations for teams to meet and provides a common area for documentation, supplies, and critical project information.

War rooms vary in size and set-up. Following (Table 5) is a comprehensive list of items you should consider including in your budget.

Table 5. War Room Set-up			
List each product separately	Recurring Cost Yes/No	In ERP Budget Yes/No	Funding Source
Room adequate in size			
Proper functioning air conditioning and heating			
Adequate electrical supply and outlets			
Wireless access			
Ethernet access			
Telephone(s)			
Conference call phone			
Tables/desks			
Comfortable chairs			
Trash bins			
Shredder sized for large reports			
Printer, Personal			
Printer, Ethernet			
Printer, Plotter			
Facsimile machine			
Copy machine			
Ink cartridges for above printing devices			
Paper; printers, copy machine & Fax			
Surge protectors			
Uninterrupted power source			
Laptop/desktop work station(s)			
Dry erase boards			
Flip chart and paper			
Projector			
Projector screen or suitable wall			
Office supplies; markers, tape, staples, tablets etc			

#8 Plan for Hardware Equipment Storage Needs

When implementing an ERP system, the hardware and servers required will need adequate storage capabilities. Frequently, equipment rooms are at capacity and may require upgrading to accommodate additional hardware. Table 6 provides a foundation to begin discussions with Facilities to ensure adequate capacity for installing and operating all necessary system components.

Table 6. Hardware Equipment Storage			
List each product separately	Recurring Cost Yes/No	In ERP Budget Yes/No	Funding Source
Adequately sized and configured room			
Adequate ventilation & temperature			
Adequate electrical capacity			
Equipment storage racks			
Adequate lighting			
Cable management system			
Properly sized uninterrupted power source(s)			
Physical security			

#9 Do Not Underestimate Miscellaneous Costs

No ERP implementation is alike, and everything listed in this document may not apply to your ERP implementation. Considering the items in the first eight steps will bring you closer to developing an accurate budget for your project.

However, from our experience we have learned that planning for some additional items can add significant value to the implementation project. If these items are recognized, discussed, and planned for early in the project, they can help you develop a more accurate budget – one with fewer surprises.

- ◆ **New Employee Wages:** Most first time implementations require new employees – either functional or technical. Determine potential compensation for these employees and document the amounts in your budget.
- ◆ **Celebration Funds:** Celebration throughout the ERP implementation is critical for the morale of team members. Teams spend many hours during several months or even years implementing successful projects for the organization. Ensure that celebration funds are available for the teams. If your organization is prohibited from using funds for this type of expenditure, consult your vendor account representative and inquire about their ability to support these types of activities. Celebration ideas include:
 - Juice and fruit for early morning conversion and testing.
 - Deli trays for required meal time meetings.
 - Ice cream socials for celebrating the acceptance of the final testing for the multiple “Go Lives.”
- ◆ **Training and Travel:** Depending on the location of your organization or arrangements with your vendor, your employees may require training that involves both training costs and travel expenses. Remember to include the meals or per diem rate paid when employees travel. Ensure enough funds are available to either send employees to training or bring the trainer to your organization.

- ◆ **ERP Conference:** Each major ERP software vendor has conferences to help users learn more about the product they purchased, provide information about new releases and release dates, and preview new functionalities. Some conferences have sessions presented to and by users of the software. Research the costs for these conferences, and include them in your budget. Some conferences allow volunteer presenters to attend at reduced rates. In addition to the cost of the conference, remember to include the cost of travel and per diem in your budget.
- ◆ **Office/Clerical Supplies:** Often overlooked, the cost of office supplies may appear benign at the outset of the project. However, depending on the size of the implementation and the definition of “office supplies,” the cost could exceed \$1,000 per month. Major consumption items include toner, copy/printer paper, the frequent use of a plotter, and training manuals or materials. If the team is segregated in a separate work space, additional essentials may include dry erase boards and markers, furniture and printers, networking and computers, and projectors. Be sure to explore the cost of house keeping services or other facility types of services such as parking or transportation.
- ◆ **5% OOPS Factor:** In most cases, to create a perfect budget would be cost prohibitive. To this end, adding a factor of 5% to each major budget category provides a needed buffer. Some items are estimated to cost one thing and three to six months later when it is time to buy, it cost a little more. This OOPS factor also allows a little flexibility in managing a budget during times where the budget may be made for three to five years out and some of the estimates are pure guesses.



#10 Define Your Budget's Critical Success Factors

How will you know if you have been successful in creating an accurate budget for your project? Now is the time to think about your measures of success. Following are specific suggestions to ensure your budgeting efforts are successful.

- ◆ **Implement Budget Management and Audits**

To help keep a sound budget on track, build in budget management processes and regular audits. An itemized budget may have all the hardware, software, and resources included, but without the budget being actively managed, overruns will occur. Early on, establish who will manage the budget and who will have the authority to say “yes” or “no” to expenditures.

Review the audits of budget expenditures, especially consultant time sheets and vendor invoices. The largest expenditure will be the hourly rates for consultants. Establish the audit policy before the consultants arrive on site. Include the auditor and vendor in the discussions and decisions regarding submission of consultant time sheets and vendor invoices.

- ◆ **Control Consultants Hours**

Determine if the hourly rate for consultants includes travel or if the travel will be billed separately. Typically organizations address this issue in the Request for Proposal. Be aware of the common practice of including an annual increase in the hourly rate either by increasing the current rate by a predetermined percent or by using the consumer price index. Which ever method is used, make sure an increase in the budgeted amount is included to support the multiple year implementations.

Determine the rates for consultants working “on site” versus working “off site.” The off site rate may never be used until the consultant misses a flight due to weather or other non-controllable factor and must work remotely. Working from off site at a cheaper rate is a good alternative to keep the project on track; however, you should never pay full rate for consultants working off site.

Cap the consultants' work weeks by setting the maximum number of hours a consultant can work each week. At the beginning of projects, 35-40 hours a week may be adequate. Later in the project, 40-50 hours a week or more may be necessary. You can put the agreed-upon maximum hours on the consultants' weekly time sheets. If more hours are anticipated in future weeks, then consultants must make their cases to the resources managing the budget.

◆ **Manage Hardware Purchases**

The initial purchase of hardware, mainly servers and their components, may include support by the hardware supplier from the date of purchase. Be careful not to purchase the equipment too early in the project; you do not want the support warranty consumed while the equipment sits in its original shipping containers. One approach is to negotiate the maintenance period beginning when installation is complete. Sometimes purchasing multiple years of maintenance when the equipment is originally purchased will provide savings versus purchasing maintenance each year.

◆ **Manage Network Needs**

Client server environments require stable networks to be productive. Ensure your networks are adequate for supporting your implementation and the long term use of the product. The budget should include any software upgrades or equipment additions that are necessary.



Consider the organizations' networks that move data to and from the ERP application and touches each desktop. This may be the same network that your e-mail or the telephony system uses. Locate each computer or printer or device that will access the ERP database or application servers and ensure they are on the network.

Consider the networks that ensure the connectivity among all the components of the ERP hardware devices. The configuration may vary among locations and include devices such as the web servers, load balancers, application servers, database servers, and storage area networks (SAN). These networks are required to move data quickly and access the various components without interruption or bottlenecks that could slow down access or the movement of data.

Planning is the Key

While the process of budgeting for your ERP implementation project can be overwhelming, nothing beats the tried and true tenets of planning. Whatever method you use to develop your budget – from sophisticated software to spreadsheets – the output is only as good as the information you input. Consider these 10 critical steps to help you plan and develop your ERP project budget.