Developing a Total Implementation Cost Envelope

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Implementation programs are typically one of the most significant investments healthcare organizations make, and the costs are usually high. Most organizations will require detailed analysis of the investment, and the project team must be prepared to support that effort.

A "Total Implementation Cost Envelope" takes the total capital and operating costs of the project into consideration – not just the software and hardware license and maintenance costs. In addition, the majority of software vendors will not develop a TICE for you – that's your job. This document provides guidance to healthcare organizations planning large technology implementations on how to approach the process of developing an accurate cost estimate for the project.

What Is a Total Implementation Cost Envelope?

The term "Total Cost of Ownership" (TCO) has become very familiar to many in the information technology industry, so much so that it has come to mean any information technology-related investment, rather than a true view of the *total* costs associated with an information systems effort. While the longer-term costs associated with operating an information system are of interest, it has been our experience that most healthcare organizations require an estimate of the three- to five-year capital and operating costs associated with an implementation rather than a TCO. Some vendors (notably Epic) recommend a longer-term view of budgeting for an EMR implementation, preferably a seven- to 10-year TCO model.

 While every healthcare organization takes a slightly different approach to developing a project budget, many organizations underestimate the total costs of the project. Developing a complete cost estimate requires considerable experience planning and managing implementation projects and often requires the creation of several iterations and implementation scenarios before a preferred scenario is chosen and approved.

The idea behind a "Total Implementation Cost Envelope" (TICE) is to provide an organization with a customized view of what it is going to spend on the HIT system and any associated software, hardware and implementation services during the implementation. Importantly, this view should be easy to understand, specific to your organization, and easily tailored to allow both detailed and executive-level presentations of the information.

Components of a TICE model may include some or all of the following:

Software
- o Software licensing costs
- o Third-party software licenses
- o Software maintenance costs incurred over the course of the implementation

Technology Infrastructure
- o Data center improvements
- o Disaster recovery
- o End-user devices
  - Printers
  - PCs
  - Biomedical devices
  - Biomedical device integration
- o Networking
  - Wireless
  - LAN/WAN improvements
- o Interfaces
- o Data conversion
- o Software vendor servers
- o Citrix servers
- o Voice recognition software for physician documentation

Bolt-ons
- o Revenue Cycle (clearinghouse, statement processing, appointment reminders, claims scrubbers, etc.)
- o Clinical (evidence-based order sets and nursing plans of care)

Personnel and Consulting Costs
- o Project leaders (clinical, operational and technical)
- o Advisory staff (compensation for senior clinical staff providing leadership and clinical governance)
- o Project team staff supplied by your organization
- o Project team staff from third-party consultancies
- o Software implementation costs
- o Trainers (principal and credentialed trainers)
- o Super users and go-live support resources
- o Revenue cycle readiness resources

Workspace
- o Space for project team staff
- o Space for validation sessions

Training
- o Travel-related costs for certifying or training your staff on the new software
- o Training facilities for end-users

Depreciation or Lost Depreciation
- o Opportunities to "write off" components of capital investments or situations in which such a "write off" must be eliminated due to earlier-than-expected replacement of a legacy system

Depending on how much detail your finance organization requires to justify the project business case, the TICE may also include additional costs or offsets to determine a complete picture of the project impact on capital and operating costs. These may include:

- o Meaningful Use payment impacts
- o Accelerated depreciation of existing system assets
- o Provider productivity reductions related to new system transition
- o Revenue cycle lift/improvements (reduction in AR days)
- o Reduced business office costs
- o Reduced readmission rates
- o Reduced transcription costs

Thus, the TICE model should reflect your organization's unique collection of costs, should be organized according to your preferred accounting standards, and should offer the flexibility to produce reports of varying detail, depending on the audience. Further, this model should be developed and operated by people with significant implementation experience.

The TICE model should include a detailed log of the assumptions on which the budget is based. These assumptions must be reviewed with senior executives to be sure they are well aware of the budget basis and agree with the assumptions.

The person, or people, operating the model should have experience planning and managing large implementation programs. Only those who have developed and managed such initiatives in the past with inpatient, ambulatory, revenue cycle and technology experience can ask the right questions and make the kinds of suggestions necessary to ensure that the model developed for your implementation is complete and consistent with your implementation plan.

Are Enterprise Solutions More Expensive Than Others?

As enterprise systems have transitioned into the top spot among healthcare provider software vendors in the U.S., more and more reports have appeared in the media about implementation costs in the range of eight or nine figures. While there may be some validity to these reports, they are rarely accompanied by details of the specific costs that are included in these numbers. These one-off reports are never apples-to-apples comparisons against other implementation estimates.

Software and vendor implementation costs are typically only a small fraction of the overall costs of an implementation. In our experience, the costs for all of the leading software vendors are roughly equivalent when all the cost categories of a TICE model are considered.

It is also quite difficult to compare vendors on a consistent basis because the scope of their services varies widely. Enterprise systems provide a comprehensive suite of solutions including ambulatory, acute, revenue cycle and departmental applications. Very few vendors can offer this degree of enterprise functionality because most don't have a comprehensive solution.

Why Is This Important?

Your implementation will be expensive, but the actual implementation cost estimate will be based heavily on your organization's decisions regarding scope, approach, timing and the cost categories included in your budget. Development of a TICE will provide your organization a complete picture of the costs involved so there are fewer surprises and budget overruns.

Typically, many scenarios need to be studied prior to approval of your budget. In addition, many reviews of the budget and the budget assumptions will be required, some detailed and some high-level, depending on the audience. Start planning now for the development of a TICE model to support your organization's implementation program approval process.

ABOUT CUMBERLAND CONSULTING GROUP

Cumberland Consulting Group is a national information technology advisory, implementation and support services firm serving the payer, provider, accountable care and life sciences healthcare vertical. Cumberland provides technology implementation and project management support to help its clients advance the quality of services they deliver and improve their overall business performance.

Our approach to IT planning is based on years of experience with successful implementations. We believe that proven methods combined with disciplined, rigorous but pragmatic project management delivers successful results.

We get it right the first time.

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