

# Technology Planning: How to Uncover Opportunities

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Studies show that most organizations have considerably more IT needs than dollars budgeted to support their initiatives – regardless of a robust or slowed economy. On average, IT budgets constitute roughly 25 percent of the immediate technology needs as defined by the company overall. As a result, effective prioritization relative to overall business needs is imperative. Choices should be made based on sound, logical analysis relative to business needs and objectives.

Most organizations have adopted a cost-justification process. Sometimes, however, cost becomes the focal point to the exclusion of justifying the “right technology.” Often times, the technology chosen to fit a short term need must be replaced well short of its functional life expectancy. Generally this is due to incompatibilities with other technologies that are implemented later. Unfortunately, proper analysis, in many cases, could have identified the unseen business driven technology need, resulting in a decision that would more likely have supported long-term compatibility, reducing total cost ownership.

### Technology investment analysis

A technology investment analysis is a methodical approach that can help ensure that the real costs of your investment are considered and expected benefits are achieved. Each step in the analysis keeps in mind the fundamentals for maximizing your IT budget – and boosting your return on investment. This formal process helps ensure your IT investments are strategic and support your organization’s business plan.

- Involve key stakeholders
- Understand your current IT environment
- Anticipate your business needs
- Evaluate alternative technologies
- Calculate total cost of ownership

### Involve key stakeholders

To fully understand whether your planned IT investments are properly focused requires knowing what you have and whether or not alignment with your people, processes and business objectives is accounted for.

Prior to implementing a new system, you must consult with your key stakeholders (managers, process owners, visionaries). The best method to get at your needs is to conduct a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis that focuses both on technology and non-technology related topics. This discussion will unearth the strengths, weaknesses, opportunities and threats relative to your company. In many organizations, the resulting feedback will often serve as a solid indicator of future technology requirements.

In addition to conducting a SWOT analysis with key stakeholders, it is critical to perform anonymous, technology focused surveys with all employees. The survey results will provide a real understanding of how your organization’s end users leverage technology to do their job.

### Understand your current IT environment

For many organizations, when management steps back to review operational processes and related technology needs, they discover a myriad of systems. Each department and/or division has its own processes, languages, forms and requirements.

A key step in performing a technology investment analysis is to be certain you understand your existing IT environment. This is more than “taking inventory.” Key areas to examine include:

- Existing technology – A thorough examination of your organization’s existing technology will help you determine which systems are essential and how these systems align with your people, processes and business needs.
- Availability and usability – Technology is the backbone of most businesses that means all systems and applications must be available to users when needed. Performance, planned and unplanned downtime, and insufficient remote accessibility are areas that can negatively impact employee productivity.
- IT support – It is important to assess your current IT staff. Does the team have the right mix of skills? Do they have tools necessary to fulfill your expectations?

### Anticipate business needs

Smart companies are able to meet difficult challenges. While your industry may be faced with a less-than-optimistic future, recessions do not last forever. It may be tempting to focus on immediate needs as opposed to developing a strategic IT plan. However, with the evolving nature of technology and the economy, focusing on immediate needs will not properly align IT initiatives with business objectives.

Start by discussing your organization’s strategic imperatives. Ask:

- What will our customers want one, two and three years from now?
- What is the competition doing or planning?
- What really comprises our costs?
- What is preventing more revenue growth?
- What potential new revenue sources exist?
- What are our operational efficiency improvement opportunities?
- What if any, are likely changes to facilities?

- What type of compliance requirements do we foresee having to fulfill?
- What new cultural dynamics (both internal and external) can we forecast?

The answers to these and other similar questions serve as a starting point for anticipating general business requirements and opportunities.

### Evaluate alternative technologies

Once you have assessed standard infrastructure and systems that will be impacted as a result of fulfilling your anticipated business needs, the next step is to identify the specific technologies to be leveraged. It is important to note that these technologies may not result in a direct investment for one, two or even three years. However, foreseeing the need can dramatically improve total cost ownership (TCO) as all interim IT investments can be made with knowledge of these impending solutions.

Below are some key emerging technologies that you consider in your strategic plan.

- **Wireless communications**  
Long-haul, point-to-point wireless technologies have matured to the point where broad acceptance is taking place in most industries. Every situation is different, but it is worth exploring as a wireless network can potentially provide for more affordable and higher-speed communications versus traditional leased lines. The advancements in security provisions, the ability to span longer distances, and its impressive weather invulnerability have even led to considerable adoption within the financial institutions industry. A wireless feasibility study may lead your organization to implement this technology for a number of reasons, including reductions in communications cost; larger and faster communication pathways; and redundancy in communications to reduce downtime risks.
- **Server virtualization and storage area networking (SAN)**  
Server virtualization in the microprocessor world enables small to medium sized organizations to reduce the number of physical servers – dramatically improving environmental and support, as well as hardware investment and replacement costs. When combined with a SAN, it also provides for highly efficient and effective shared storage, offsite data and systems replication for disaster recovery, real-time failover for high-availability, enterprise backup-to-disk and rapid recovery.

- **Thin-client technologies**

Thin client technologies, such as terminal services, Citrix and/or desktop virtualization, have brought technology full circle. Once again, the technology is centralized, but now we can do so while retaining the full benefits of the end-user, Microsoft Windows experience. The hard and soft cost and efficiency savings have proven substantial given the ability to practically eliminate the need to “touch” personal computers. With this technology, application updates now consist of a single, central update for all users. Other benefits include increased PC life cycles and improved performance, especially in the cases of wide area network communications and older PCs.

- **Convergence – IP Telephony, Voice over IP (VoIP) and unified communications**

The world is evolving from proprietary telephony hardware solutions to that of standards-based software through convergence, which, in its simplest sense, collapses the former distinct voice and data networks into a single network. The outcome is “voice as an application” on computer networks. IP Telephony, Voice over IP (VoIP) and unified communications are changing the ways in which voice is transferred to end-users and their options for access. Not only do these technologies enable cost savings due to network infrastructure component sharing, but also due to flexibility associated with inbound and outbound calling, expanded features and functionality, easier administration with less reliance on outside vendors and remarkable voice clarity. Additionally, it enables integration and incorporation of solutions such as desktop faxing, voicemail, e-mail, calendaring, Internet, mobile devices, audio and video conferencing.

### Calculate total cost of ownership

When technology initiatives do not align with business needs, the TCO for the technology soars. TCO consists of the costs incurred throughout the lifecycle of an asset, including acquisition, deployment, operation, support and retirement. The high costs are due to the essential, difficult and generally overlooked task of “looking at the big picture impact associated with every technology component purchased.” Only after you’ve identified the right technologies, can the results of your ROI and/or TCO analysis be truly relevant.

- Does the technology manufacturer possess both the vision and ability to execute long term?
- Is there broad market availability of technical support skills?

- Does the technology meet the immediate, secondary and anticipated needs of the business?
- Will it integrate with existing, planned and anticipated technologies?

These and other questions, if left unanswered, will often times result in technologies having shorter, sometimes significantly shorter, lives than desired. Yet, diminished viability is only one of many commonly affiliated and costly problems that can be associated with making short-sighted purchases.

## Conclusion

Information technology has been, and continues to be, an integral and defining factor in the day-to-day operations of most successful companies. It is critical to maintain a focus on the role technology plays in your company's success and in the creation of value. Too often, that value goes unrecognized until the company suffers a loss. The opportunity for IT to enhance your business is stronger than ever.

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