

A white paper from The Net Effect, L.L.C.



Where business needs and technology intersect

**Bridging the Gap
between
Legacy Infrastructure
and
Modern Applications**

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Introduction

As long as there is technology, there will be a gap between legacy infrastructure and modern applications. How you manage that gap can have a significant impact on your company's future. Aging hardware, software that is no longer supported, custom applications that cannot be upgraded, network protocols that have fallen out of use -- there are many aspects of your IT system that are still perfectly functional, yet present a challenge due to their limited ability to integrate with newer offerings.

Bridging the gap first requires an equal understanding of where you are now, and where you want to be. The second step is to develop a plan and a budget that will get you from here to there. Finally, implementation of the project according to the plan will help you achieve your goals. You should begin the process by working through the questions below.



Define the scope of the existing gap

Ask yourself these questions:

- Do your managers/department heads have direct access to the information they need for gauging performance, forecasting, staffing, etc. or must they request reports from the individuals or departments controlling the software?
- Do you still use email and fax to send spreadsheets and reports between locations and/or departments?
- Do your branch offices send weekly or monthly sales reports for manual input into the central system at corporate headquarters?
- Does your accounting department make periodic G/L entries for inventory because your warehouse software isn't integrated with your accounting software?

- Do you have up-to-date systems in some areas but not in others, or is all your technology well past its prime?
- Have you standardized on any IT vendors in the last five years or do you shop around each time a purchase is made?
- Do you make IT purchases according to a plan or do you react to needs as they arise?
- When was the last time you made a major IT (hardware or software) purchase?



Better technology is a means, not the end

Too often, businesses focus on changing or upgrading their IT systems, not on their actual business needs. Better technology should not be a goal on its own, but rather a tool for better managing your business. Identify the issues driving your current decision to upgrade. For example,

- Do you need a better accounting system or do you need better reporting?
- Do you need a comprehensive ERP system or do you need to increase productivity?
- Do you need a new CRM system or do you need to increase sales?
- Is the upgrade intended to provide you with something good or to protect you from something bad?

Focusing on the reasons driving the decision to upgrade will enable you to craft an upgrade plan that fits both your goals and your available resources.

Bridging the gap doesn't have to be painful or expensive if you develop a long-term plan.



An incremental approach vs. the big leap forward

It may be that developing some small piece of interchange software can eliminate manual data entry and extend the life of your current systems for a few years, giving you

time to plan for a complete upgrade at some point in the future. It may be that you can upgrade in small steps over a period of years, integrating new technology with old. Or it may be time to say goodbye to legacy problems and move to an entirely new solution now. **How do you decide?**

1. Assess your current position (business, financial, physical, technical)

- a) Are you understaffed and struggling to keep up, or are you holding onto employees with the expectation of an uptick in orders?
- b) Is your work in progress stronger than cash flow right now, or is it time to invest some of that cash in long-term assets?
- c) Are you well-positioned in your current physical location/space or do you expect to move in the near future?
- d) Have recent technology purchases been spread across your company or concentrated in some areas?

2. Assess your staff

- a) Are your employees accustomed to adapting to regular changes in the workplace or have things "always been done this way"?
- b) How high is your employee turnover? Will extensive training on a new system be wasted as employees regularly come and go? Will training need to be an ongoing process to handle the regular influx or new people, or primarily a one-time expense with a new system?
- c) Do you have a lot of fast-learners who will pick up new software quickly?
- d) Do you have natural "teachers" who will bring along the others in learning a new system?
- e) Will your employees require a lot of un-learning of old ways before learning new?
- f) Have your employees been requesting an upgrade or are they hoping it never happens?

3. Identify your priorities: Increased productivity? increased capacity? increased flexibility? better reporting? better forecasting? better planning? stronger controls? stronger oversight? stronger security?

4. Determine your planning cycle -- where do you want to be in 18 months? 36 months? 5 years? 10 years?
5. Develop a realistic project budget that covers the span of your upgrade timeline. The industry rule of thumb is that the total cost of implementing a new software project is 2-3 times the cost of the software purchase. Be sure to include:
 - a) Hardware
 - b) Software
 - c) Electrical capacity
 - d) Network cabling
 - e) Telecom services & systems / bandwidth
 - f) Customization
 - g) Training
 - h) Project Management
 - i) Contingencies
6. Choose an experienced, competent IT Project Manager.



Some things just don't go together

It's important to determine what **you** consider most important when assessing IT purchases, as many goals run counter to one another. You will need to find the right balance between some of these inherently incompatible characteristics.

Ease of Use vs. Feature Set: The fewer features in a software application, the easier it is to use ... but then it has fewer features.

The Pareto Principle states that 80% of the effect comes from 20% of the cause. This is known as the 80/20 rule in software development, as it has long been documented that *80% of the features in any software application are never used!* (Think about Word and Excel -- how many of those hundreds of features do you use on a regular basis? how many do you use rarely? and how many have you never once used?)

If your current system lacks only a few features that you consider necessary for growth, it might be possible to improve the current system. If a new system is really the way to go, carefully assess the feature set and the amount of training that will be required for your employees to learn what their job requires. There's no point spending a lot of money on a big new system that only a handful of people can figure out how to use.

Flexibility vs. Speed & Automation: Flexibility in a software application provides options, which can be a good thing, but each option requiring a decision on the part of the user will slow down processing and make automation more difficult (or even impossible). A simple application with few options can be operated by rote and provide the opportunity for automated processing.

Security vs. Convenience: It's an old adage in the IT world that the only secure server is one with no user accounts and no network connections. Of course that's also a useless server, which is where the balancing act comes into play. Convenience demands greater access to the network for more people from different locations using various devices, but each of those conveniences creates a security risk that must be managed.

Conclusion

You can work through these questions on your own, shop around for software, find out what other businesses like yours are using, coordinate the purchase of everything required for the new system and supervise the installation and configuration ... if you like. You will spend a lot of time and effort, however, on tasks that may be outside your skill set and likely are not the best use of your time.

Working with a consulting group experienced in helping small- and medium-sized organizations face these challenges will not only free up your time to do the things you do best, it will provide your IT project with its best chance of success.

Where you want to be tomorrow depends on how you manage change today. We can help.



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The Net Effect, L.L.C. is a consortium of consultants and programmers experienced in providing information management services to a variety of industries. The company was founded in Mobile, Alabama in 1996 and has worked with businesses across the US, in Canada and in Europe.

Glenda R. Snodgrass, President and lead consultant for The Net Effect, specializes in software implementation and project management. She has experience with a variety of database applications (POS, accounting, e-commerce, CRM/ERP) in the US and in France, and has developed browser-based applications in PHP and MySQL. Glenda holds a B.A. from the University of South Alabama (1986) and a maîtrise from Université de Paris I - Panthéon-Sorbonne in Paris, France (1989).