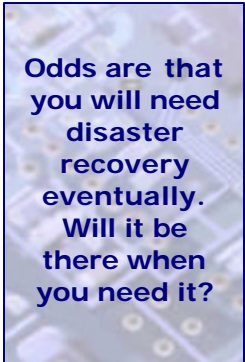


How Much Should You Spend on Disaster Recovery?

Calculating the Value of Business Continuity



Odds are that you will need disaster recovery eventually. Will it be there when you need it?

Many businesses wonder, what is the right amount to budget for business continuity planning – the preparations, plans, and systems kept on the shelf in anticipation of a disaster? Particularly, what sort of information technology investment should a business make to ensure continuous operations? If you are facing just such a quandary, then here are some basic analysis that can help.

The purpose of this paper is to discuss how much you should budget for disaster recovery, i.e., what is the maximum value of continuous operations to your business. How you *spend* that budget is another topic altogether. Obviously, any spending should effectively minimize your risk and keep your business from succumbing to an unexpected loss of operational capability. The key question is, what should your spending limit be?

The basic idea is that you should spend the least amount possible to ensure an appropriate level of continuous operations – without spending more than your preparations are worth. For example, if a company makes \$200,000 a year, then spending \$200,000 a year on a continuous operations capability would not be a good decision. However, spending a few dollars to ensure the company doesn't lose all if its accounting and client data would probably be a good investment. The difficulty lies in determining some appropriate amount in-between.

A quick and dirty rule of thumb is to use the value your business generates over a one-week period. Take your annual revenue and divide by 52. That is the total loss (actual cost plus opportunity cost) you would experience if you closed your business for one week. This is a maximum planning figure for continuous operations planning – most business can expect a one-week interruption in their operations at some time during their existence. For example, let's say the company mentioned earlier has an annual revenue of \$2 million. Then an investment in continuous operations is justified at a maximum of \$38,000.

If you would like a more detailed approach, then consider this:

First, determine your business rhythm. A good approach is to sort your important business systems into three categories: *Critical*, *Key* and *Sustaining*. Then define time periods for each category based on the effect of a failure of that business system. What this means is that, should a failure occur in a business system, then the business will suffer dire consequences if the failure should last longer than a predetermined amount of time. Depending on the type of business, the amount of time for *Critical* is generally 24 hours, *Key* is one week, and *Sustaining* is three weeks. For some businesses, *Critical* may be as long as one week, *Key* one month and *Sustaining* six months.

Critical systems are usually those that directly affect the line of business on a daily basis. They often include telecommunications, networks, certain computers, line of business databases, production equipment, production facilities, transportation of goods and services, and the employees associated with these systems. Critical systems should include all non-recoverable data and information that is important to the business.

For example, for most business, communications is a critical system. If you can't talk to your customers or suppliers for more than a day, then you'll see an impact on your bottom line. You may have workers sitting idly because they can't talk to anybody. This is incurring cost without generating revenue -- not a condition most business can sustain for very long periods of time.

Key systems generally support the line of business, such as support equipment, individual telecommunications equipment, individual computers, support facilities, transportation of inventory items or support services, water, and employees associated with these systems.

For example, if your ordering system goes down, but you keep a week of inventory in stock, then you know you have a week to get it back up before it will impact your operation.

Sustaining systems are usually everything else. They are generally administrative in nature, necessary for the long run health of the business but not directly affecting the line of business on a short-term basis. Filing, planning, administrative review, administrative transportation, and the employees associated with these systems often fit into this category.

Second, determine the total cost of interruption. Estimate the cost to your business associated with each critical and key system being down 24 hours, one week, and two week periods. Generally, you don't need to plan for sustaining system failure – you will have enough time to deal with those on a case-by-case basis should they actually occur.

For example, say you have determined that your network system is critical. What is the estimated cost if your network is unavailable for 24 hours? What is the cost of labor sitting idly by? What is the cost of the overhead to support them? What is the opportunity cost of lost revenue? What is the cost of bringing in a contractor to fix it? Next, estimate the same costs for a one week and a two week period. These costs will vary, depending on the specific cause of the network problem and when it happens. A good rough-order-of-magnitude estimate will do. Sometimes these costs can also be gleaned from previous bad experiences.

Third, do the math. Multiply the 24 hour, one week, and two week figure by the probability that the system will fail for that period of time sometime during the next year. If you are unsure of the probabilities, then use 90% for 24 hours, 60% for one week, and 30% for two weeks. Whichever number is greater, then that number becomes your budget figure.

For example, assume you determined that a Network outage would cost your business \$8,000 for 24 hours, \$50,000 for a week, and \$120,000 for two weeks. (The surprise in this exercise is finding out how much system failures can cost. That cost is often much higher than people expect). Now, multiply \$8,000 by 90%, \$50,000 by 60% and \$120,000 by 30%. The results are \$7,200, \$30,000 and \$36,000 respectively. Since \$36,000 is the largest figure, that becomes your target budget limit for that system.

Fourth, mitigate the risk. For each system and timeframe, consider what level of risk mitigation you can buy for the associated amount of money. If you can substantially reduce the risk, then that becomes your spending limit for that system.

For example, for the \$36,000 target budget we determined above, you could lease space on a backup server that is not collocated with you business. You could also maintain a dialup service separate from your broadband vendor. Use the money to target the events that are most likely to occur. If you have extended power interruptions in your area, your money may be better spent on

a backup power system. But *always, always, always* have some form of data backup system at the very minimum.

The most important aspect of budgeting for disaster recovery is gaining an understanding of the value your systems brings to your business. Once you know the value, you are in a much better position to decide what level of continuous operations planning you need.

This WhitePaper was prepared by Vega & Associates, Ltd., a technology consulting firm that is expert in the design and deployment of strategic, value-driven technology solutions. Visit us at www.vnaltd.com, or call us at 817.379.9952.