

CALCULATING THE COST OF DOWNTIME IN YOUR BUSINESS

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Introduction

What would an hour of downtime cost your business? As a business owner, I've had many slick salespeople try to convince me of things using huge formulas and best case scenarios for their cause. This article really breaks down the reality of downtime, the necessity of uptime and how it can work for your business.

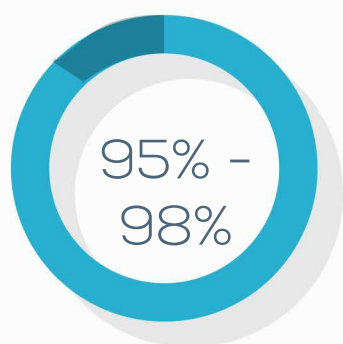
As it relates to potential problems that could cause IT downtime within a small to midsize business (SMBs), it makes financial sense for business owners to understand how much outages cost to them. Uptime for SMBs using the Break/Fix IT Support Model is between 96% and 98% during business hours. On the surface, it sounds pretty good. A 96 average is an A+ in school, right? Well, in the world of Information Technology, a 96 is a huge FAIL. A network that is up 96% of the time is down 83.2 hours per year. Many SMBs don't realize it, but the average small business loses more than \$55,000 in revenue due to IT failures each year.¹

1 "IT Downtime Costs \$26.5 Billion In Lost Revenue," InformationWeek, May 24, 2011

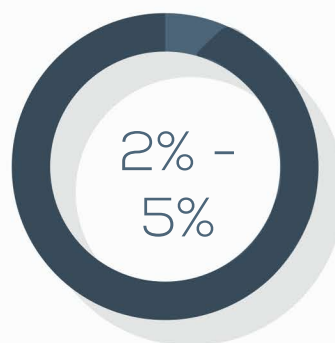
Causes of Downtime

Understanding the cost of downtime to your organization is a critical exercise in order to determine what kind of investment makes sense in implementing a backup and disaster recovery plan. Having a ballpark number allows organizations to use cold, hard facts to weigh their economic tolerance for how much data and downtime they can afford to suffer. This number brings into balance the investment they will choose in mitigating the risks.

Before delving into cost, it is beneficial to understand the causes of downtime for a typical SMB. Most downtime falls into two categories: Everyday Issues and Site-Wide Issues.



Every Day Issues



Site Wide Issues

EVERY DAY ISSUES

Everyday issues usually account for 95% to 98% of downtime that SMBs encounter.² These issues are often mundane, but are very costly just the same. Everyday issues manifest themselves in two main categories – obvious downtime and hidden downtime. An example of obvious downtime would be hardware issues, such as fried motherboards, hard drive failures and bad power supplies, can put your system down for quite some time. As the name implies, an obvious downtime keeps employees from working due to something that is undeniable and non-subjective. Like the frog in the boiling pot, hidden downtime are issues like a slow computer, slow Internet or slow printing. These are the types of issues that affect not only the bottom line, but also employee morale. A recent study by the Social Market Foundation found that happy employees were 12% to 20% more productive.³

SITE WIDE ISSUES

Site wide issues occur less frequently – but when they do occur, they can potentially have a huge negative impact for the SMB. These are the events that people immediately associate with the word “disaster.” They are catastrophic incidents such as floods, fires or natural disasters like hurricanes and tornadoes. When these disasters occur, their effects are rarely isolated to certain servers, but rather effect the entire organization. These types of incidents only make up about 2% to 5% of the problem.



² “Most SMB Downtime Caused by Hardware Failures,” Midsized Insider, Feb. 21, 2013

³ “Study: Being happy at work really makes you more productive” Fortune Oct 29, 2015

Simple Calculation Case Study

Example On Hidden Downtime

We will begin with an average employee wage of \$35,000 per year. We will assume that this employee takes two weeks off for vacation every year and that they make about \$16.80 per hour before benefits. During a typical hour of work, their workstation is a little slow and causes them to wait a couple of minutes each hour. This translates to 16 minutes each day or 1 hour and 20 minutes over the course of a week. The weekly costs of these minutes would be \$23.28. Over the course of a year, this would be \$1,164.00.

Total Payroll of \$380,000/Year

UNDERSTANDING THE COST OF DOWNTIME

Downtime tends to cost organizations most when it hits mission-critical systems or other systems that employees need to do their daily work. So, the basic utilities like Internet access, phones and email will all obviously take a large toll on the business when they're down. But even when these utilities are up, businesses feel the financial impact when systems and applications go down or operate at less than optimum speeds. SMBs need to have a keen awareness of the cost of downtime and hidden downtime as well as a basic understanding of the dollar and cents consequences of the hard cost and less quantifiable soft costs. Below is a short list of the costs associated with downtime:

- Loss of transactional revenue
- Loss of Inventory
- Cost of Repair
- Bad Publicity
- Loss of Business Opportunities
- Damage to Brand Image & Reputation
- Loss of Employees & Deflation in Employee Moral
- Loss of Goodwill from Customers & Vendors

As was mentioned earlier the cost of downtime will vary widely from one small business to another. Understanding a meaningful and "close to reality" number for your business is essential for any good business owner or entrepreneur. Below is a formula for you to calculate the cost of your business and how it relates to downtime.

60,000

3 EMPLOYEES @ \$20,000/yr

140,000

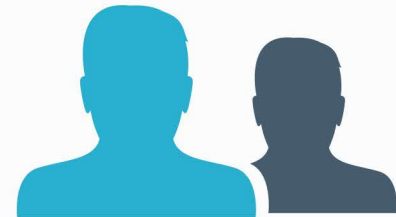
4 EMPLOYEES @ \$35,000/yr

100,000

2 EMPLOYEES @ \$50,000/yr

80,000

1 OWNER @ \$80,000/yr



Formula for the Cost of Downtime

REVENUE LOST

This one might seem trivial. Assuming revenue is generated online, simply divide yearly sales by 525,600 (60 min x 24 hours x 365 days) for average per-minute cost of downtime. So, the formula might look something like this:

$$R_{\text{loss}} = \frac{\text{Annual Revenue}}{525,600} \times t = \frac{\quad}{525,600} \times \quad$$

Where t denotes the number of minutes of downtime

COST OF LOST EMPLOYEE PRODUCTIVITY

This also includes time employees cannot operate as usual.

$$C_{\text{prod}} = W \times E_{\text{affected}} \times t = \quad \times \quad \times \quad$$

Where W denotes average hourly wage per employee and E denotes the number of employees affected by downtime

COST OF IT RECOVERY

This also includes the time it takes your IT staff to get your system back up and running.

$$C_{\text{rec}} = W \times E_{\text{IT}} \times t' = \quad \times \quad \times \quad$$

Where E_{IT} denotes the number of employees engaged in IT operations and t' denotes the time required to fix all affected systems and return to business as usual

PROJECTED LOSS OF REVENUE DUE TO CUSTOMER LOYALTY

For simplicity's sake, let's assume the business in question is not very high profile. So, projected lost revenue is calculated as a percentage of potential repeat sales.

$$P_{\text{loss}} = R_{\text{loss}} \times r = \quad \times \quad$$

Where r denotes the average repeat sales rate

PROJECTED LOSS OF REVENUE DUE TO DAMAGED REPUTATION

This also includes the lost sales from customers researching the best deals and referrals.

$$P_{rev} = R_{loss} \times r' \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$$

Where r' denotes the percentage of sales referred by social media and other type client referrals.

TOTAL COST OF DOWNTIME

So, a formula for total cost of downtime (TCoDT) might look something like this:

$$TCoDT = R_{loss} + C_{prod} + C_{rec} + P_{loss} + P_{rev}$$

Where R_{loss} , C_{prod} , C_{rec} , P_{loss} and P_{rev} respectively denote lost revenue, cost of productivity, cost of IT recovery, projected loss of repeat sales, and projected loss due to damage to reputation.

$$\underline{\hspace{1cm}} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

SOLUTION

Once downtime hard costs have been estimated, organizations can start to think about their tolerance for downtime and outages. The basic jest of these tolerances is to understand just how much the organization can be financially impacted without too much business disruption. Like all things in life, there is a balance that must be struck between mitigation of risk and the cost of mitigation of that risk. Below is a short list of items to consider when finding solutions to mitigate downtime risks:

- Proactive IT Support
- Backup & Disaster Recovery Planning
- Cloud Server Platform
- Cloud Email Platform

A proactive IT Managed network with proper asset management and a properly fitted Backup and Disaster Recovery Plan is the first step to preventing downtime. An hour-long meeting with a trained professional could save the average SMB hundreds of thousands of dollars throughout the life of the organization. If you are currently working with a qualified professional, then you need to make them earn their stripes by helping you engineer a solution for your business. If you are not working with a qualified professional, you need to find one fast.



CALL US ABOUT OUR BACKUP & DISASTER RECOVERY SOLUTIONS!
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