



***SMB PERSPECTIVES***  
**SMBS - THE CASE FOR BUYING MODERN PCs**

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### **Introduction**

As the global economies continue their slow and steady march towards recovery, for businesses worldwide IT priorities are once again taking center stage. Nearly 40% of the PCs in small businesses are more than 3 years old, and a large percentage of them are running older operating systems such as Windows XP

### **Financial Impact to a Small Business**

Our research shows that older PCs impact a small business in several ways – Productivity Costs & Maintenance Costs

### **Innovations to Compete in the “New Normal”**

Having survived the downturn, small businesses must now focus attention on how to thrive in the “new normal”. That means taking advantage of PC hardware and software innovations that are most likely to make small businesses more competitive

### **Conclusion**

Modern PCs deliver more than an incremental improvement in performance and features and even price conscious small businesses would benefit significantly from replacing older PCs with modern PCs



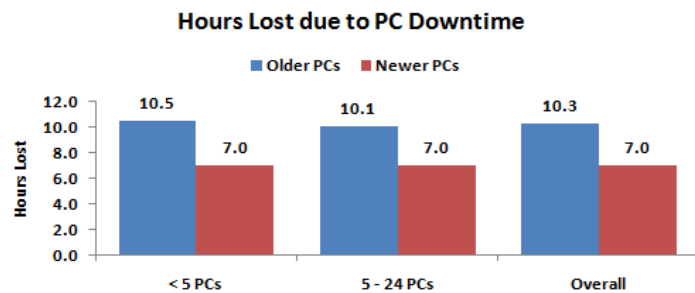
INTRODUCTION

As the global economies continue their slow and steady march towards recovery, IT budgets that have largely been frozen over the past 18-24 months are slowly loosening up. Businesses worldwide are beginning to see the light at the end of the tunnel and IT priorities are once again taking center stage. Businesses need to come out of this recession smarter, leaner and more efficient. In this regard small and large businesses do not differ. What is different is the way they go about allocating their technology investments to achieve this goal. For small businesses the centerpiece of employee and business productivity largely remains the PC.

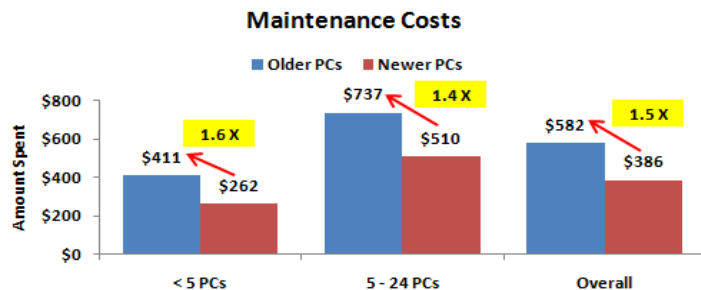
Over the last several years small businesses held back on new PC purchases. As a result, nearly 40%<sup>1</sup> of the PCs in small businesses are more than 3 years old, and a large percentage of them are running older operating systems such as Windows XP. This is a practical decision in many ways. But small business owners should also consider the productivity and financial impact that *newer* PCs can have on their business. Our research shows that newer PCs impact a small business in five main ways:

1. **More secure:** Research suggests that PCs older than 3 years are more susceptible to hardware and software failures, virus, spyware and malware attacks than newer PCs.

2. **Improved productivity:** Newer PCs experience 40 percent less downtime than older PCs – on an average 7 hours versus 10 hours for older PCs. Older PCs experience about five incidents per year and between ten and eleven hours of downtime per incident. In an average small business, that translates into 50 hours of downtime per PC per year.



3. **Less costly to maintain:** The cost of maintaining newer PCs can often be 1.5 times less than the cost of maintaining older PCs. This is largely due to the frequency of problems increasing as the PC ages. These costs include monies spent for changing hardware such as hard drives, graphics cards and network cards. It also includes money spent for having someone come and fix problems with the



<sup>1</sup> All data sources used in this report are based on a survey of over 1600 small businesses conducted across US, UK, Italy, Australia, China, Brazil and India

PC. Often these costs go unnoticed or under the radar over the course of a year or over the life of a PC. The fact remains though, that at some point it is just more cost effective to retire ailing PCs and purchase a new PC.

4. **Take advantage of newer applications:** Small businesses should follow a simple rule - Newer applications are better than older applications. Newer applications deliver better features, usability and better performance, leading to better productivity. Small businesses often cite application compatibility as a reason for not upgrading or not buying new PCs. It was a valid reason in the past since application developers take some time before releasing applications updated for new operating systems. With Windows 7, however, this problem largely goes away as older applications can be used under a special "XP mode". This means small businesses can take advantage of new hardware and operating systems without fear.
5. **Enhanced support:** Older PCs are harder to support because supporting them often involves either having a person onsite to fix problems or having someone come to the office to fix the PC. This increases PC downtime, impacts productivity and raises costs for the small business. Newer PCs have features and functions that allow support staff including PC manufacturers to remotely access the PC and try to resolve the problem.

We recommend that small businesses to have a 3-year refresh rate for their PCs to ensure that they are getting the most out of this productivity tool and not incurring unnecessary costs.

#### BRINGING IT TOGETHER: THE IMPACT TO A SMALL BUSINESS

Let's say a small business has five PCs. Two PCs are more than three years old and three PCs are less than 3 years old. Based on the data shown above we can calculate the direct costs and the cost of lost productivity for old and new PCs.

1. **Direct maintenance costs** – As mentioned earlier, older PCs can cost small businesses 1.5 times more in maintenance than newer PCs. In the above example, the direct cost associated with the older PCs is likely to be around \$1200 versus \$1100 for the newer PCs<sup>2</sup>.
2. **Productivity costs** – In terms of lost productivity due to PC downtime, the two older PCs are likely to experience a total of 100 hours of downtime in a year<sup>3</sup>, versus 63 hours of downtime for the three PCs that are less than 3 years old for a total of 163 hours of downtime. That's over four week's worth of productivity in a year! Assuming the average hourly salary of PC using worker is about \$20/hour<sup>4</sup>, the small business is losing over \$3000 per year in productivity.

<sup>2</sup> See Appendix for calculations

<sup>3</sup> See Appendix for calculations

<sup>4</sup> Source: US Dept. of Labor

Adding these two costs together yields the total cost incurred by a typical small business that has mix of older and newer PCs. In this case the cost is over \$5500 per year!

If instead the small business replaces the two older PCs with newer PCs, which means all five PCs are less than 3 years old, that small business will likely incur a downtime of 105 hours<sup>5</sup> per year or a productivity cost of just over \$2100 per year. If additional direct costs of maintenance are included the total cost of maintaining all new PCs will likely be just over \$4000. That's a saving of over \$1500 in the first year alone. **To put it in perspective – that is equivalent to buying up to one or two new notebooks or two to three new desktops (depending upon specific purchase price).**

### INNOVATIONS TO COMPETE IN THE “NEW NORMAL”

Most economists and experts agree that while the economy is on a slow recovery path the resulting environment is likely to be even more competitive. Having survived the downturn, small businesses must now focus attention on how to thrive in the “new normal”. This means new ways of working, taking advantage of new technologies and capabilities to grow their business, and an agile, mobile work-style. That means taking advantage of **PC hardware and software innovations** that are most likely to make small businesses more competitive.

**Hardware innovations:** Over the last three years chip manufacturers such as Intel have made significant innovations that small businesses can benefit from

1. **Faster processors:** From a hardware perspective small businesses benefit from not just faster processors but also new 2010 Intel Core processors that have multiple “cores”, can run multiple “threads” on each core, and can automatically adapt to the user’s needs by speeding up a core to further speed up calculations and other tasks.
2. **Improved graphics:** Improved graphics also enable smoother video making applications such as video conferencing practical and usable in business.
3. **Energy efficiency:** Modern PCs deliver better manageability, improved usability and better energy efficiency, size and weight. New 2010 Intel Core processors provides chips suited for a variety of tasks from high performance computing to chips offering a balance of power and energy efficiency.
4. **Communication:** Newer PCs typically support the latest high speed Wi-Fi protocols and technologies increasing the connectivity options for small businesses. Connecting with newer devices such as Smartphone via Bluetooth is fairly standard, and enhances small business productivity. Some newer laptops now also come with chips capable of connecting to wireless 3G/4G networks.

<sup>5</sup> See Appendix for calculations

**Software innovations:** Although a majority of small businesses are still using Windows XP, the momentum around Microsoft's Windows 7 operating system should make most small businesses stand up and take notice. Some key innovations include:

1. **Stability, Security:** Windows 7 delivers a more stable environment, improves protection against viruses, spyware and malware and improves overall usability. Features such as Advanced Backup help alleviate small business concerns around losing their data.
2. **Networking and Collaboration:** Some changes are very evident such as the ability to quickly and easily set up ad-hoc networks for sharing documents and media – a feature that would be appealing to small businesses who need to collaborate. And as more than 50% of small businesses have mobile workers. Windows 7 significantly eases set up and connecting to new networks in a safe and secure way. Windows 7 comes in three different flavors and small businesses should be careful to choose the right one. Small business thinking of establishing a local area network (LAN) for the first time or are thinking of buying a server for sharing files and printers should consider Windows 7 Professional rather than Windows 7 Home Premium.
3. **Supportability and Manageability:** Both Intel and Microsoft have made great strides in manageability of PCs. Manageability refers to tools which make it easier for support staff to manage PCs. Features such as Remote Desktop allow support staff to remotely control the PC, diagnose and fix problems.
4. **Application Compatibility:** The “Professional” version also includes a new feature called “XP Mode”. Small businesses now have the assurance that older programs that have not yet been migrated to support Windows 7 can still be run under XP Mode. These and other important features native to Windows 7 will help small businesses be more efficient and provide a long-term standard for their business moving forward.

## CONCLUSION

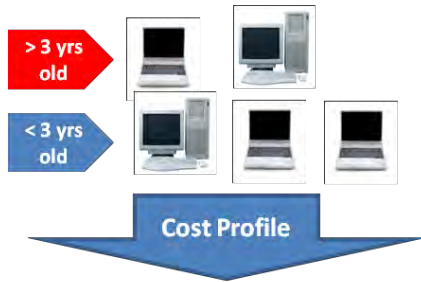
Using older PCs is akin to using gas guzzling clunkers – if you want a fuel efficient car; you have to replace your old car with a new one that takes advantage of the latest technologies. The same considerations should apply when evaluating older PCs for replacement. Among small businesses, the PC is still the centerpiece of business productivity and buying a new PC is likely to have a more significant impact on productivity than any other technology.

When making a decision when to refresh their business PC, managers should think not just about purchase price, but give higher priority to how a new PC can improve their productivity and allow them to put these new technologies to good use. Modern PCs deliver more than an incremental improvement in performance and features and even price conscious small businesses would benefit significantly from replacing older PCs with modern PCs. Global economies are recovering and the time for small businesses to come out ready and well equipped to take on new challenges is now.

APPENDIX

The Case for a Modern PC  
Maintenance Cost Comparison – Old and New PCs

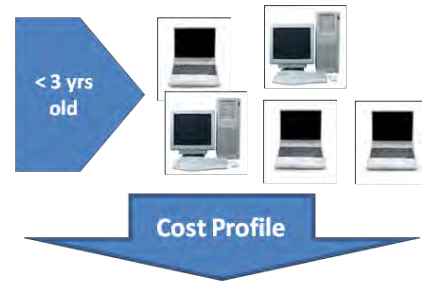
Mix of Old and New PCs



	PC Age		
	< 3yrs	> 3 yrs	Total
# of PCs	3	2	5
# of incidents	3	5	8
# hours of downtime	7	10	
Total annual downtime (hours)	63	100	163
Cost of lost productivity @ \$20/hour	\$1260	\$2000	\$3260
Avg maintenance costs/PC	\$386	\$582	
Total cost incurred	\$2418	\$3164	<b>\$5582</b>



All New PCs



	PC Age
	< 3yrs
# of PCs	5
# of incidents	3
# hours of downtime	7
Total annual downtime (hours)	105
Cost of lost productivity @ \$20/hour	\$2100
Avg maintenance costs/PC	\$386
Total cost incurred	<b>\$4030</b>

**Net Savings  
\$1552**

## ABOUT TECHAISLE

Techaisle is an actionable data driven market research analyst and consulting company based in San Jose with global coverage. Focused on SMBs, Emerging Markets and Consumer research, Techaisle has pioneered a business model which is very different from traditional market research firms.

Go-to-Market strategies require an actionable data delivery solution based on aggregation, focused analytics and dynamic market segmentation. Techaisle's core premise is that data is inherently more valuable when it can be summarized, made actionable and delivered as an answer to a specific question. Techaisle provides services in five major areas:

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- **Syndicated Research**, providing deep dive actionable data and analytics based on primary research
- **Custom Consulting** with strong analytical capabilities to uncover opportunity for clients; Survey Research of End Users and Channels across multiple countries; Qualitative research including focus groups and ethnography
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