

## Leveraging the virtual world for your entrepreneurial business

### OPERATIONS

The virtual world has radically changed the landscape of how you can manage operations in an entrepreneurial business. The processing power of modern computers, combined with the widespread availability of wireless broadband internet connectivity, has made it possible to run practically the entire operations of a company virtually. The growing trend toward cloud computing and shareware enables businesses to utilize a great variety of software applications and a large amount of storage space – as well as share information with employees, partners, and customers – at very little cost. Such connectivity, combined with inexpensive access to high-quality chat, voice, and video communication, also enables virtual teamwork with both contracted employees and service vendors (such as accounting, legal services, and IT services firms) practically anywhere on the globe. Finally, a number of software applications and service vendors make it possible to cheaply and conveniently collect money and purchase goods & services via the internet as well – allowing you to automate large portions of these processes and tie them directly into your bank account(s). While there is no way to automate effective judgment and decision-making to make your business work, logistically, inexpensive virtual operations are a very real possibility. You just need a couple of basics to get started.

Sources: Woods, 2012

### **Connectivity & infrastructure basics – key hardware, software, & peripherals**

There are a handful of basics which any small business needs to leverage the virtual world. Any office needs a basic desktop (cheaper) or laptop (more portable/flexible) computer with good processor speed & temporary memory (RAM), generous quantities of storage memory (ROM), and good audio/video capabilities (including a high-quality multimedia card and built-in camera, microphone, and speakers). You also want to have an all-in-one imaging device, which allows for scanning, copying, printing, and faxing. Lastly, you also want a good cell phone/palmtop computer/tablet, with generous quantities of memory and good audio/video capabilities (including front & back built-in cameras and a microphone with good noise-reduction capability), and the capacity to fully interface with your desktop/laptop. In order to connect all of this hardware to the internet, you will need good high speed internet access (preferably wireless) and a good cell phone service provider plan with unlimited data roaming, as well as a web hosting provider. Finally, you will need a basic suite of software applications for personal productivity, digital graphic design, and communication, as well as online storage space for file sharing. This software and storage space is either available for purchase or accessible for free or at low cost via the internet, as will be described below.

Sources: Allen, 2007; Inc. Magazine, 2010; Woods, 2012

### **Software: purchase options vs. cloud computing**

Traditionally, software applications have been available for purchase and use on local computers. Increasingly, however, there are a number of software applications which are available for free or little cost that reside not on your home office (i.e. personal) computer, but rather on publicly available servers accessible through the internet. Some of the major types of software options available to any small business are as follows:

\*Pricing based on available information. For up-to-date pricing for your business, contact the vendor.

\*\* Comments based on available information.

- **Personal productivity**
  - Calendar/task planning: Microsoft Outlook (purchase or cloud) or Google's Calendar function (cloud). HyperOffice, Zimbra, Zoho, and IBM's LotusLive suite also offers a collection of cloud-based personal productivity applications.
  - Word processing: Microsoft Word (purchase or cloud) or Google's Documents function (cloud). HyperOffice, Zimbra, Zoho, and IBM's LotusLive suite also offers a collection of cloud-based personal productivity applications.
  - Spreadsheets: Microsoft Excel (purchase or cloud) or Google's Documents function (cloud). Intacct (cloud) also offers more robust financial planning software. HyperOffice, Zimbra, Zoho, and IBM's LotusLive suite also offers a collection of cloud-based personal productivity applications.
  - Presentations: Microsoft PowerPoint (purchase or cloud) or Google's Documents function (cloud). HyperOffice, Zimbra, Zoho, and IBM's LotusLive suite also offers a collection of cloud-based personal productivity applications.
  - Databases: Microsoft Access (purchase or cloud), TrackVia (cloud), or Caspio (cloud).
- **Digital graphic design**
  - Graphic design: Adobe Photoshop (purchase), Fatpaint (cloud), or Cloud Canvas (cloud).
  - Web publishing: Macromedia Dreamweaver (purchase) or eZ Publish (cloud). Many personal productivity software packages (see above) have basic web publishing capability.
- **Communication**
  - Email: Available at no additional charge through your web hosting provider or through free public services such as Hotmail (Microsoft), Gmail (Google), and Yahoo Mail (Yahoo). Most personal productivity software packages also have basic email packages.
  - Text: Your cell phone has basic texting capability. Applications such as Microsoft Outlook Mobile Service or MySMS also enable text messaging from your desktop or laptop.
  - Chat, voice, & video: Applications such as Skype (Microsoft), Windows Live Messenger (Microsoft), Google Chat (Google), and Yahoo Messenger (Yahoo) provide this 3-way functionality, and are all free to install. Most personal productivity software packages also have basic chat/voice/video packages.
  - Social media: Facebook, Google Circles (Google), Twitter, and other platforms provide different types of social media functionality, and are all free to join.
- **Storage media**
  - File sharing: Various hardware vendors, such as Western Digital, as well as software vendors such as Dropbox (Evenflow - cloud) allow for storage and sharing of large quantities of documents online. Most of the personal productivity suites also offer basic file sharing capability.

Application	Price*	Comments**
<u>Calendar/Task Planning, Word Processing, Spreadsheets, &amp; Presentations</u>		
MS Office	\$100-200 (purchase) \$15/mo. (cloud)	<ul style="list-style-type: none"> <li>• Mobile version doesn't support SyncML.</li> <li>• Cloud version has some database limitations.</li> </ul>

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Google Apps	\$5-10/mo.	<ul style="list-style-type: none"> <li>Limited project management capability &amp; web publishing capability.</li> <li>Limited web conferencing capability.</li> </ul>
HyperOffice	\$7-15/mo.	<ul style="list-style-type: none"> <li>No online authoring and public web site publishing capabilities.</li> <li>No web conferencing capability.</li> </ul>
Zimbra	\$400-800/year	<ul style="list-style-type: none"> <li>No online authoring and full text search capabilities.</li> <li>Limited project management capability.</li> <li>No web publishing capability.</li> <li>Limited functionality with Blackberry.</li> <li>Mobile version doesn't support SyncML.</li> <li>No database capability.</li> </ul>
Zoho	\$5-80/mo.	<ul style="list-style-type: none"> <li>Limited online authoring capability and web publishing capabilities.</li> <li>Not available for mobile devices.</li> </ul>
Lotus Live	\$15-45/mo.	<ul style="list-style-type: none"> <li>Limited web publishing capabilities.</li> <li>Mobile version doesn't support SyncML.</li> <li>No database capability.</li> </ul>
<b>Databases</b>		
MS Access	\$50 (purchase) \$15/mo. (cloud)	<ul style="list-style-type: none"> <li>Robust functionality for affordable price, but requires some programming skill on the part of the user.</li> </ul>
TrackVia	\$35-250/mo.	<ul style="list-style-type: none"> <li>Has basic search capabilities without complex SQL functionality.</li> </ul>
Caspio	\$40-300/mo.	<ul style="list-style-type: none"> <li>Simple GUI. Very little need for programming.</li> </ul>
<b>Graphic Design</b>		
Photoshop	\$400-600 or \$19.99+/mo.	<ul style="list-style-type: none"> <li>Extremely robust functionality, but requires user graphic design skill/learning curve on GUI.</li> </ul> <a href="http://www.adobe.com/products/photoshopfamily.html">www.adobe.com/products/photoshopfamily.html</a>
Fatpaint	\$9/mo.	<ul style="list-style-type: none"> <li>Considerably less functionality, but easier GUI.</li> </ul> <a href="http://www.fatpaint.com">www.fatpaint.com</a>
<b>Web Publishing</b>		
Dreamweaver	\$100-200 or \$19.99+/mo	<ul style="list-style-type: none"> <li>Extremely robust functionality, but requires user learning curve on GUI.</li> </ul> <a href="http://www.adobe.com/products/dreamweaver.html">www.adobe.com/products/dreamweaver.html</a>
eZ Publish	Free	<ul style="list-style-type: none"> <li>Open-source code. More robust functionality than personal productivity software, but requires user programming ability. Premium service/support options available for a fee.</li> </ul> <a href="http://www.ez.no">www.ez.no</a>
Google web development app	Free	<ul style="list-style-type: none"> <li>Basic web publishing capability from Google.</li> </ul> <a href="http://support.google.com/sites/bin/answer.py?hl=en&amp;answer=153197">support.google.com/sites/bin/answer.py?hl=en&amp;answer=153197</a>
Mac web development app	Free	<ul style="list-style-type: none"> <li>Basic web publishing capability from Mac.</li> </ul> <a href="http://www.apple.com/support/iweb/">www.apple.com/support/iweb/</a>
<b>Text</b>		
MS Outlook Mobile	Free	<ul style="list-style-type: none"> <li>Free add-on to MS Outlook to enable you to send text</li> </ul>

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