

Technology: Your roadmap to small-business success

Identify the technology you need to strengthen and grow your business.



In the past two decades, computers and the Internet have changed the world. People now communicate faster, more often, and in different ways. Likewise, businesses operate differently—processing and storing more information, reaching out to new markets, and managing operations more efficiently.

The advent of technology has ensured that life—and business—will never be the same. However, computer-related technology (often called information and communication technology, or ICT) has not yet reached every corner of the world, and it has not reached many small and medium businesses that could benefit from the services it provides.

This document is designed to help the many small and medium businesses that have yet to take full advantage of ICT. We will introduce the benefits of ICT, show examples of how technology has helped businesses, and introduce basic elements of a technology solution that could help your business.

“Information and communication technologies (ICTs) have an immense impact on virtually all aspects of our lives...The capacity of these technologies to reduce many traditional obstacles, especially those of time and distance, for the first time in history makes it possible to use the potential of these technologies for the benefit of millions of people in all corners of the world.”

World Summit on the Information Society, Geneva 2003, Tunis 2005.

Technology for SMBs: Essential. Available. Affordable.

The smaller your business is, the more efficient it has to be. You need to invest limited resources wisely, which means making necessary business purchases right now. At the same time, you need to identify the resources needed for tomorrow—including technology that will help your business grow and stay ahead of the competition in the months and years ahead.

Computers, servers, software, and Internet connections are among the investments that small and medium businesses of all kinds—and in all locations, rural as well as urban—need to consider. In fact, these technologies are already being utilized by an increasing number of small and medium businesses around the world.

Today, more people than ever before use computers at home, school, and work. In Western Europe, the U.S., and other developed nations, more than three out of four people use computers, and the number is growing each day. Similar growth is seen in developing nations,

where the number of Internet users has increased tremendously. In all, more than 1 billion people worldwide now connect to the information, communication, and other resources available on the Internet, and 2 billion people are expected to be online by 2011¹.

As Internet usage grows, Internet connections—and particularly fast Internet connections—are also becoming essential tools for businesses. In fact, a recent UN report stated that broadband Internet usage is becoming so vital for individuals and businesses that it merits comparison to utilities such as water and electricity. Already, more than 44% of developing and transition countries have responded to the urgent need to increase broadband access by establishing national plans for fostering an information society, and another 20% are developing such plans.²

In emerging markets, small and medium businesses account for 98% of all businesses, 50-80% of industrial employment and 50% of manufacturing output.

United Nations Conference on Trade and Development, 2005.

1. Computer Industry Almanac (www.c-i-a.com)

2. UNCTAD Information Economy Report, 2006. <http://www.unctad.org/Templates/WebFlyer.asp?intItemID=3991&lang=1>

The Benefits of Technology to Your Business

Whatever the industry and business size, technology—and specifically the combination of computers, computer-related equipment, and Internet connections—can help you do more, and open new opportunities to expand your business.

Grow your business.

Expand your business with technology that helps you design products for a broader customer base and increase sales to new markets.

ICT can help your business:

- Expand into the world export market
- Improve and increase communication with customers, partners, and employees
- Access timely, essential information, and research online
- Sell products and services online

Work smarter.

Efficiency can separate your business from the competition. With the right technology in place, you can organize and manage your business more effectively, and do more with fewer resources.

ICT can help your business:

- Automate everyday tasks, such as customer orders and invoicing
- Spend less time on accounting, inventory control, and finance
- Track customer orders from production to fulfillment
- Store product and customer information in one place

Attract more customers.

Technology can help you find customers who need your product or service, increase their interest in what your business offers, and build your relationship with them over time.

ICT can help your business:

- Advertise to customers all over the globe through a Web site
- Build repeat business through better and more efficient sales and marketing
- Collect information about customer needs and preferences
- Measure customer response to your sales and marketing efforts

Enhance customer service.

Build your relationship with customers by communicating more often and providing an overall improved level of service.

ICT can help your business:

- Communicate with customers in new, less expensive ways
- Minimize order and shipping errors that frustrate customers
- Resolve customer issues more quickly
- Gather and assess customer feedback more easily

Stay ahead of the competition.

Should you raise product prices? Is the weather going to affect a crop? Use technology to stay abreast of the latest information affecting your business, and then adjust quickly to protect the bottom line.

ICT can help your business:

- Learn about local, regional, and global issues affecting your business
- Access competitor information quickly, so you can act immediately
- Track the health and profitability of your business

“My community has no access to major cities, even by phone. During our last election, we had a serious law and order situation in our village. At that time, we had no phone line to communicate with the higher authorities to seek help. We could not even file our complaints. Then I decided to set up this telecenter in my house.”

Asma Tahira, small-business owner, Pakistan



"We have called all small businesses and entrepreneurs to action on the subject of using the latest technology in their business. This is an important way for them to increase operational efficiency, and it is a necessity if they are going to become competitive or remain competitive in the world arena."

Zafer Caglayan, Turkey's Minister of Trade and Industry

Technology Supports SMB Growth: Global Examples



In China, Intel and Sichuan Telecom are working together to build a complete rural communications network that will aid small businesses. Easy-to-use technology already enables farmers to access supply and demand information, advertise, and utilize other agricultural services online, resulting in lower costs and greater efficiency.



In France, the Passport to the Digital Economy program has helped 15,000 small businesses adopt digital technology. Aided by the Intel World Ahead Program, the Digital Economy program provides a central location for SMBs to improve ICT skills, access financing and technical resources, and open new sales channels and business opportunities.



In India, women have become small-business owners of more than 200 computer-training centers in the state of Maharashtra. Each center has several PCs that are used to provide computer literacy to women from the surrounding community for a minimal fee. So far, more than 10,000 women have been trained to run the businesses, and 4,000 more are being trained each year.



In Pakistan, under President Rozgar, reduced-rate loans and payback deferrals have enabled creation of more than 1,000 telecenters. These new, technology-based centers are run by small-business owners who provide their rural communities with the opportunity to use shared PCs and communicate by phone, fax, and e-mail.



In Thailand, the Tourism Authority, Intel, TT&T, and Google have combined to offer hardware, software, and other technology that aids small and medium enterprises (SMEs). Through the "Amazing i-Business for SME" program, small and medium businesses gain low-cost access to broadband, Web hosting services, and more that can help them be more productive.



In Turkey, the Ministry of Education has worked with Intel to create public Internet access centers (PIACs) that give citizens—including small businesses—free Internet access. Farmers in remote areas are among those who have taken advantage of the online information, services, and resources available at the more than 4,500 PIACs implemented around the country.



In Vietnam, with the help of WiMAX,* a high-capacity wireless broadband solution, hotels in the Lào Cai province now use Voice-over-Internet Protocol (VoIP) to entice tourists and adventure travelers. Hospitals use technology to access the latest medical information online and through VoIP, and Internet cafés serve residents and tourists. In addition, small businesses can now access government services more easily, and more aggressively pursue trade relationships with neighboring countries.

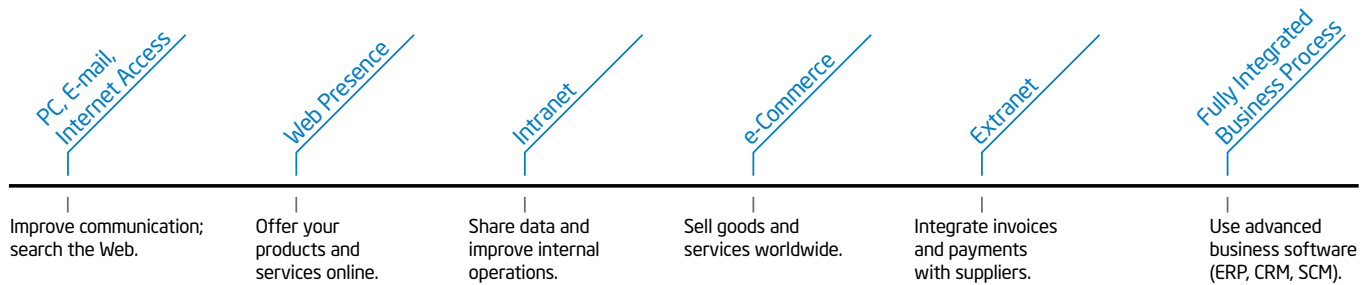


Figure 1: Technology-supported business capabilities: beginning to advanced.

Getting Started

As we've shown, small and medium businesses all over the world are using technology to improve their businesses. However, adding technology to your own business may seem overwhelming at first. In the following pages, our goal is to make the process a little easier.

As shown in Figure 1, you can start with a small investment in technology, and then add to that as needs increase. You may, for instance, want to communicate faster with your customers and suppliers. A minimal technology investment will allow you to do that. Then, as business grows, you can expand the online presence to include a Web site for conducting e-Commerce.

To help you decide where to start, we'll describe the basic elements of technology that are available, and explain the benefits of each. Then we'll show examples of packages of technology—often called “telco bundles”—that are similar to those that can be purchased from telecommunications providers.

Desktop Computers

What is a desktop computer? A desktop computer, also called a personal computer or PC, is a device that provides storage and processing capabilities that allow you to perform many work tasks faster and more efficiently.

How can a desktop computer help my business? Desktop computers are the basic building blocks for businesses. You can add software to the computer that will allow you to perform many tasks, such as storing and quickly retrieving critical customer information. You can add peripheral equipment like scanners and printers to PCs for more options. Most importantly, you can connect PCs to the Internet, allowing new ways of communication and timely access to information from around the world.

Which desktop computer should I choose? One of the keys to selecting the right desktop computer is making sure it has a processor that can support all the work you plan to do. As shown in Figure 2, Intel offers a range of processors that can meet your specific computing needs.




	 Basic	 Intermediate	 Advanced
Processor	Intel® Core™ i3 processor	Intel® Core™ i5 and i7 processors	Intel® Core™ i5 and i7 processors with vPro™ technology
Best For	Low price; handles routine business tasks	Greater speed and memory for performing multiple tasks simultaneously	Ultimate smart performance; reduced IT maintenance and management; advanced security

Figure 2: Processors for desktop PCs.

Laptop Computers

What is a laptop computer? Also called a notebook computer, a laptop computer is a small personal computer that's designed for mobility. Depending on which laptop computer you buy, it will offer similar features to a desktop computer but will be smaller and easier to transport, and will use less power (operating on batteries when not attached to an electrical outlet).

How can a laptop computer help my business? Businesses choose laptop computers because they offer several key advantages:

- Freedom to work anywhere—at home, at the office, or on the road
- Convenience of small size and reduced weight
- Flexibility to operate on batteries, not just electrical supply
- Less overall energy demands







	 Basic	  Intermediate	  Advanced
Processor	Intel® Core™ i3 processor	Intel® Core™ i5 and i7 processors	Intel® Core™ i5 and i7 processors with vPro™ technology
Best For	Reliable basic computing; great energy efficiency; handles some compute-intensive tasks	Smart performance and expanded wireless capabilities	Ultimate smart performance; reduced IT maintenance and management; advanced security

Figure 3: Processors for laptop PCs.

Creating a Mobile Office

These days, you don't have to do all your work from a single location. With appropriate technology, you and your employees can work outside the office—which can save time and lead to far greater productivity. Most mobile offices begin with a laptop computer, which can be transported easily wherever work needs to be done. Make sure the laptops you purchase have wireless connectivity built right in—most do—allowing Internet access inside the office or on the road.

In addition to laptop computers, you may want to consider these options:

- A mobile printer, so you can print material from your laptop
- A USB drive (also called a jump, flash, or thumb drive) on which you can back up the data that's on your laptop, transfer the data to other computers, and share files with other people
- Online fax services such as efax (www.efax.com) and Innoport (www.innoport.com), which allow you to send faxes as e-mail
- A cell phone or VoIP phone that can keep you connected to the office and customers



Software

What is software? Software is a collection of programs that combine to perform tasks on your computer. Some common types of software include:

- **System software:** System software helps run your computer. It includes software such as operating systems that make it easy for you to interact with your computer.
- **Application software:** Application software allows you to accomplish tasks on your computer. Examples include educational software, databases, industrial automation, and software that allow you to perform word processing and create presentations.

The following are examples of specific business software that might be useful:

- Microsoft Office* applications (allows creation of documents, spreadsheets and presentations, as well as e-mail, messaging, and calendaring)
- Adobe Reader* to view PDF files
- Internet Explorer* for Web browsing
- Security, virus protection, and content-filtering software
- VoIP for communications: Voice-over-Internet Protocol telephone service might be less expensive than traditional phone service, and easily integrated with other Internet functionality
- Web-based applications:
 - Access e-government, e-health, and other services that might help you, your business, and your employees
 - Enable transactions such as applying for government programs or licenses



How can software help my business? Different types of software can help your business in nearly endless ways:

- Track inventory and sales
- Perform basic or advanced accounting
- Measure marketing performance
- Create presentations, spreadsheets, and other documents

Servers

What is a server? A server is a computer designed to store, protect, and manage information. Businesses with multiple personal computers can back up their data and store it on servers. Servers can also be used as a central depository for documents and spreadsheets, so employees don't have to search for what they need on multiple computers.

How can a server help my business? Servers provide a range of services, depending on your needs:

- Store and back up critical information in one place
- Increase data security
- Centralize information so employees can share files through the server
- Host your Web site

Which server should I choose? Servers should match business needs. As shown in Figure 4, low-cost options are available for basic file sharing needs. If you're ready to implement a Web or e-mail server, or need a server that handles shared applications for accounting and other projects, an Intel® Xeon® Processor 3000 Sequence-based server is a good choice. When you are ready to add servers to support database or customer relationship management (CRM) capabilities, a server based on the Intel® Xeon® Processor 5000 Series will be best.




	 Basic (5-19 employees)	 Intermediate (20-99 employees)	 Advanced (100+ employees)
Processor	Intel® Xeon® Processor 3000 Sequence	Intel® Xeon® Processor 5000 Sequence	Intel® Xeon® Processor 7000 Sequence
Best For	Low price; file sharing; print serving; centralized data backup	File, print, Web, and e-mail server; shared accounting applications	Highest performance; CRM; remote management; business analytics; database server

Figure 4: Processors for servers.

*Other names and brands may be claimed as the property of others.

The Internet

What is the Internet? The Internet is a global system of interconnected computer networks that carries information, resources, and services around the world.

How can the Internet help my business? The Internet is a vast resource that can help businesses in several key ways:

- **Sales:** Many businesses use the Internet to conduct business: generating leads, selling product, arranging for payment and product fulfillment, and more. E-commerce has proven to be a very effective method of doing business “virtually.”
- **Communication:** Electronic mail (e-mail) is the most common example of how messages and data can be communicated over the Internet. Online communication is nearly instant, so employees, partners, and customers can communicate and collaborate more often and more efficiently.
- **Information:** More than a billion people use the Internet, and many of those people (and businesses) post information that can be used to improve your business. Web sites offer information about the weather, business trends, how to cut costs, and just about any other topic you can imagine.
- **Resources:** Through the Internet, you can access e-government services, tax and registration forms, and countless other resources that you can find online and then download to your computer.

How can I connect to the Internet? The many ways to connect to the Internet include:

- **Wireless broadband:** Wireless Internet connections are broadband connections that don’t use a telephone line or cable network. Instead, you connect to the Internet using radio frequency bands.
- **Wired broadband:** Technologies such as cable, asymmetric digital subscriber line (ADSL), and integrated services digital network (ISDN) provide high-speed, wired, broadband Internet access. Wired broadband connections allow digital information to be sent at high speeds over phone lines or cable networks, carrying both data and voice signals simultaneously. These wired technologies are not available in all regions.
- **Dial-up:** Dial-up connections are very slow connections over phone lines. Their slow speeds mean they are not ideal for businesses.
- **Satellite:** With satellite connections, data is relayed via a satellite to a local dish that is positioned on a roof or in a similarly high spot. Satellite connections can be expensive to set up and may not provide the reliable service businesses need.

The Benefits of Broadband Technology

Broadband Internet connections are faster and generally more reliable than dial-up alternatives. For small and medium businesses, a broadband connection can make an enormous difference in productivity, efficiency, and the range of services that can be provided.

In the past, the benefits of broadband were not available in some areas, where broadband solutions such as digital subscriber lines (DSL) and cable broadband access were too expensive or difficult to deploy. Fortunately, in recent years, broadband technology has become more available and cost-effective, as well as easier to deploy.

Today’s wireless broadband systems can be rolled out quickly, providing small and medium businesses with greater opportunities for Internet usage and business growth.



WiMAX*: Forming the Connections Small Businesses Need

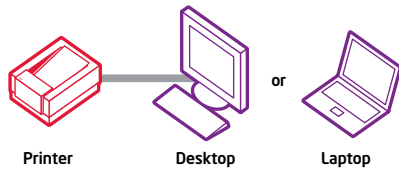
WiMAX* is a wireless broadband solution designed to deliver ever-present, high-throughput broadband wireless services at a low cost to remote and rural areas.

Optimized for high-speed data, WiMAX networks provide new connectivity options to small and medium businesses. Today’s wireless systems can reach remote regions and can often be rolled out faster and more cost-effectively than wired solutions such as DSL and cable, which often require laying cables and ripping up buildings and streets.

Learn more about WiMAX at
www.intel.com/go/wimax

Putting It All Together

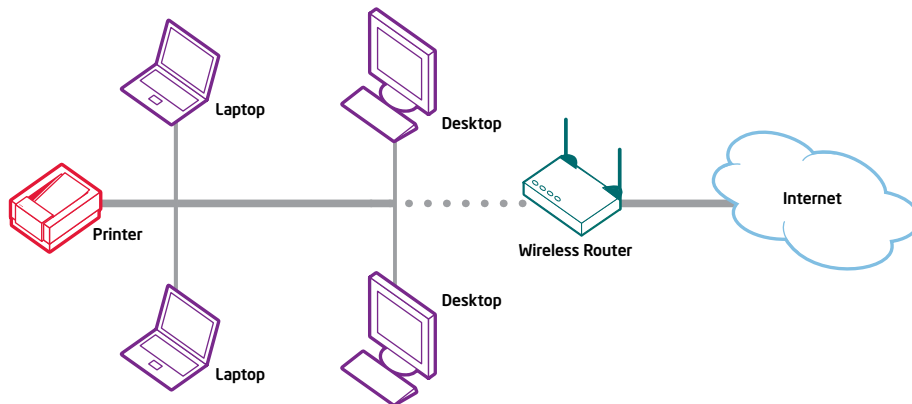
The following diagrams illustrate a few of the many ways in which technology can be combined in a small or medium business to improve productivity and efficiency, and to enable growth.



Level 1

- Number of Employees: 1-3
- Buy Laptop and/or Desktop PCs
- Buy Printer

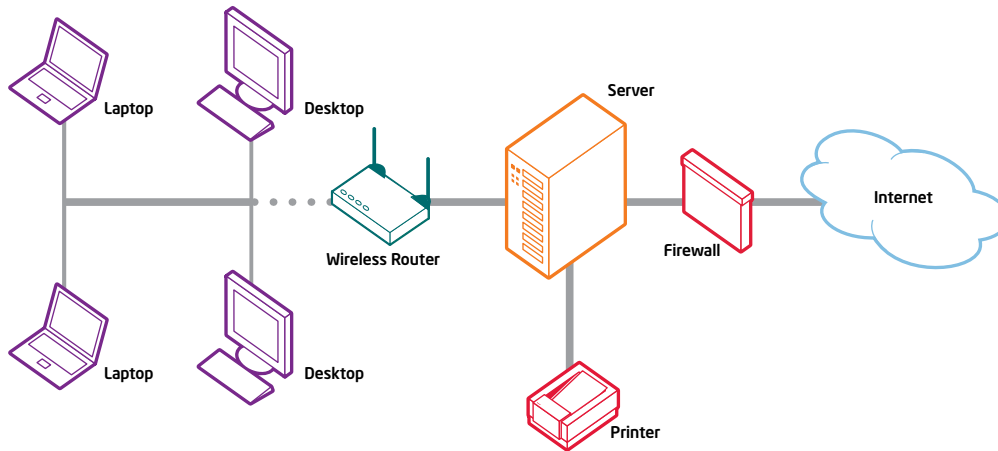
In the first level of deployment, laptop and desktop computers connect to a printer. Basic business functions can be performed more quickly on the computers, but communication is limited because these computers cannot connect to the Internet.



Level 2

- Number of Employees: 1-3
- Add Laptop and/or Desktop PCs
- Add Wireless Network

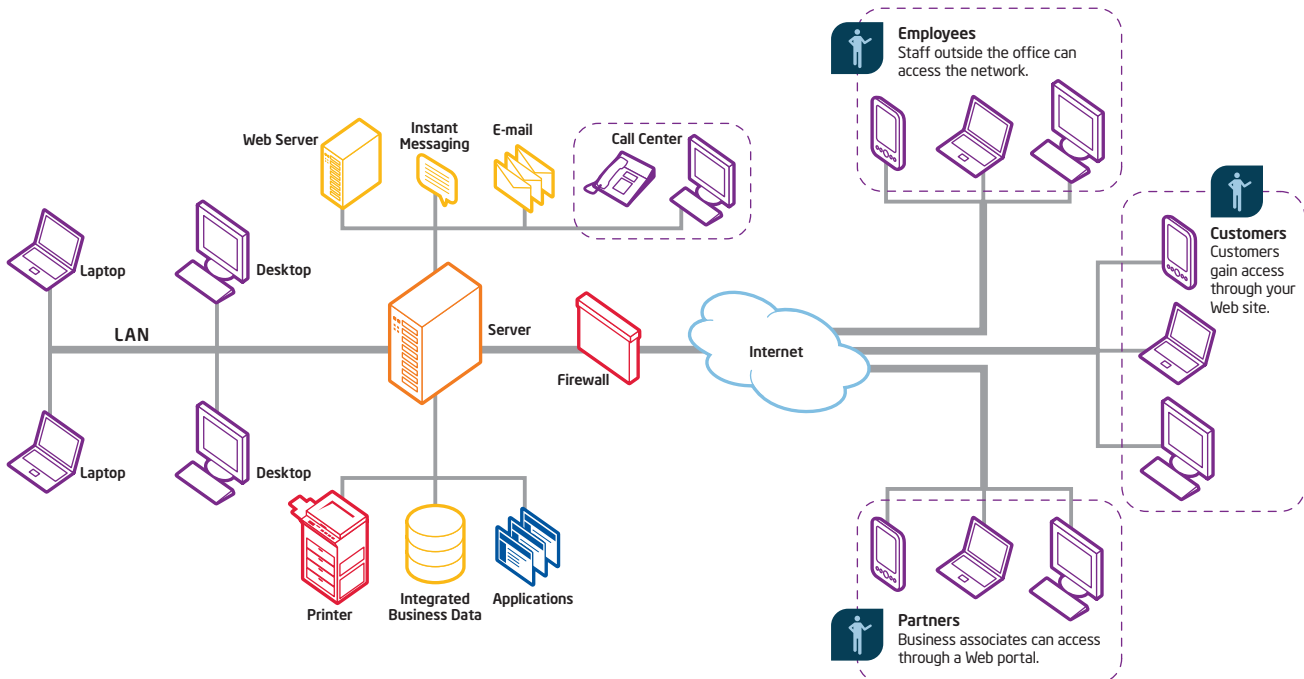
Adding wireless Internet access enables online communication, research, e-Commerce, and much more.



Level 3

- Number of Employees: More than 3
- Add Laptop and/or Desktop PCs
- Add Server

A server allows file sharing, gives your business greater security, data storage, and room to grow.



Adding multiple servers gives your business even greater security, more data storage and Web support, and more room to grow.

Level 4

- Number of Employees: More than 10
- Add Laptop and/or Desktop PCs
- Add Server Kits

Summary

At Intel, we believe technology can help businesses like yours grow and compete in today's fast-paced information society. That's why we work with governments and telecom providers around the globe to help ensure that ICT is available and affordable for small and medium businesses.

Through technology, you can do so much more:

- Grow your business
- Work smarter
- Attract more customers
- Enhance customer service
- Stay ahead of the competition

We look forward to supporting you as you strengthen your business with the aid of technology.

For More Information

To learn more about how technology can help your business, visit:

SME Toolkit: free information to help small businesses in emerging markets www.smetoolkit.org

Intel World Ahead Program: www.intel.com/worldahead

Intel® Business Exchange: www.intel.com/software/exchange

Computer Discovery Zone: www.pc.com

