

NETWORKING 2 COMPUTERS FOR TRANSWEST EQUITIES

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INTRODUCTION TO WORKBOOK & MANUAL

This workbook/manual is to be the resource material for reference in assistance with the original setup or troubleshooting of all computer IT considerations for Transwest Equities. It will therefore, by definition, be a continual work in progress as computer technologies and intelligence change literally every day. There are sections that will become quickly outmoded, and others that may continue to provide a valuable reference resource for years to come.

How To Use this Manual? The manual is designed to be used in 2 ways. **First**, as a basic “How To” guide on setting up a computer system in an office of Transwest Equities. It begins with new computers still in the boxes and ends with a fully networked LAN and fully operational loan system. There are check boxes that you can use to check off after each section is accomplished. If you hit a snag during one of the sections, there is a **COMMENTS** field at the end of each section as well for your personal notes. Please feel free to write down your experience or progress for later referencing. If you encounter something that was not covered in the manual, write it down, and report it to Tim Lee or the home office at a later time. Every computer system is unique. And it is impossible to cover every contingency. You will no doubt experience an item not covered by this book. And your assistance in uncovering these areas is desired as we want to have a broad coverage of topics.

The second way to use this manual is to simply reference it for any of its topics. The subjects will expand over time and hopefully this manual will encompass all aspects of the IT environment of your office.

You will find the following Notice Boxes throughout the manual. Each type is defined here for you.



IMPORTANT INFORMATION - These boxes represent very important information. You should take special heed to read these important information notices.



SUGGESTIONS – Suggestions that might make your experience a littler easier, more enjoyable, less troublesome. Won't change the world but might save you some time.



STOP Signs – Vital information. Cannot be missed. Absolutely imperative that you follow these STOP sign instructions.

HARDWARE REQUIREMENTS

This manual is being written as a guide in the installation and implementation of a 2 computer network. At the time of this writing, the TCL loan system software is the only application being used in the offices of Transwest Equities to calculate the pre-computed loans as well as track all payments made on those loans. TCL was originally written in the early 1990's and is therefore limited in its capacities. Although forward looking at it's time, it is now antiquated in many respects. One of those limitations is the number of computers allowed to modify the loan database at the same time. TCL allows only 2 terminals to concurrently interact/update/modify its database files. Therefore, this manual will deal only with setting up 2 computers on a LAN (Local Area Network).

Definitions:

Server – Main computer housing the TCL loan system program and data files.

Terminal – Networks to the Server computer, accessing TCL and its' data files.

It is important to note that each computer on the network has a unique name and function. The Server computer is the most vital to the loan system as it actually houses the TCL application files as well as the database files. The Terminal computer will communicate/connect with the Server computer via network wires or wireless networking. The TCL loan system will NOT function if the Server is turned off, loses power, or breaks down. Further, the Terminal will not be able to access the TCL loan system housed on the Server if the network is disabled in any way.



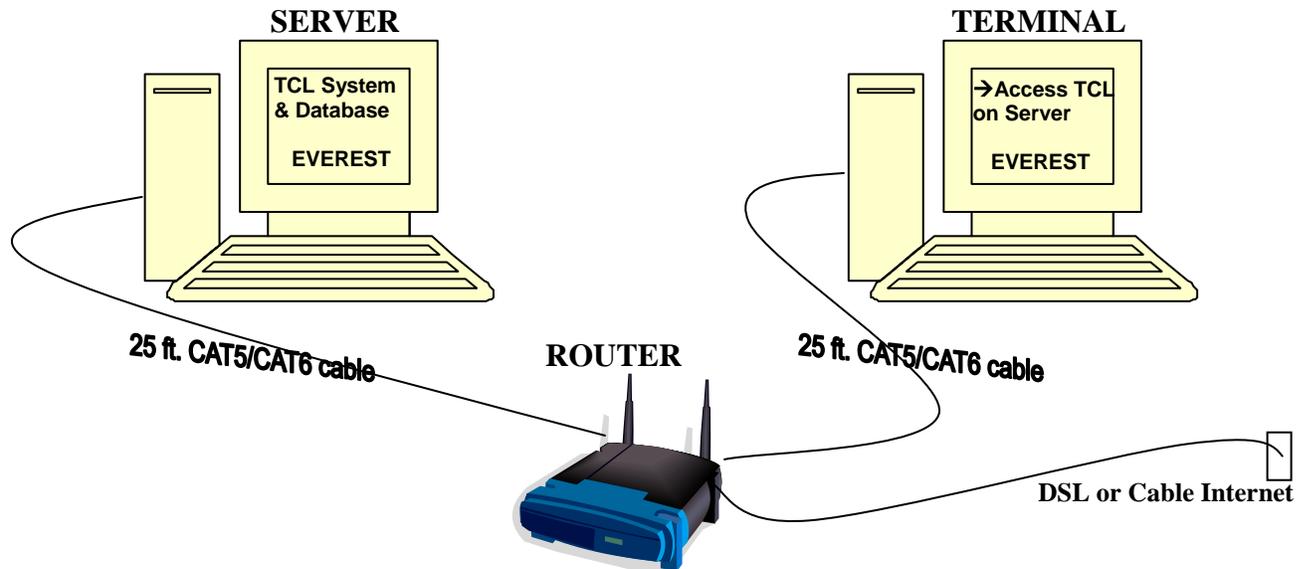
The Server is always the key computer in the network. It should therefore be the most advanced of all other computers as it relates to CPU speed, memory size and speed, hard drive RPMs, access/seek times and capacity, network throughput speeds etc. Always choose to designate your most advanced computer as the Server.

Type of Network: In order to develop your hardware list for your network, you must decide if you want to have a **wireless** network or a **wired** network. Each has its' own advantages and disadvantages. It is beyond the scope of this manual to provide instruction on which to choose. Currently, wireless is being implemented more frequently.

There are advantages and disadvantages to both types of networks. For further reading on the advantages of each type of network, see **Appendix A**

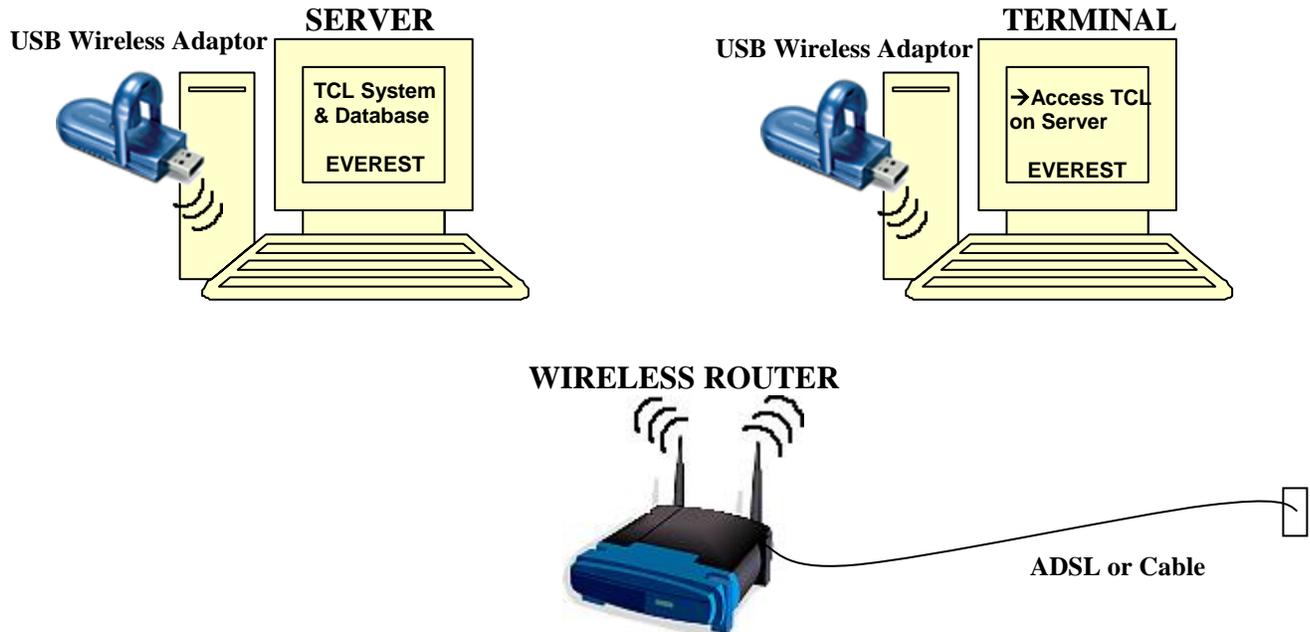
In the next 2 pages are diagrams of the hardware configurations for each type of network: wired and wireless.

Hardware Requirements for a WIRED Network:



- Server computer with 10/100 network card
- Terminal computer with 10/100 network card
- 2 - CAT5 or CAT6 network cables – the length is determined by the amount of distance you have between the 2 computers
- 1 – Broadband Router with minimum of 2 ports

Hardware Requirements for a WIRELESS Network:



- Server computer with USB port
- Terminal computer with USB port
- 2 - USB wireless adaptors, one for each computer
- 1 – Broadband Wireless Router

Network Setup Combinations: It is possible to use any combination of the above 2 setups for your network. In other words, you might choose to use a wired connection from the Server to the router and a wireless connection from the Terminal to the router. For a more stable network, wired connections are preferable. For portability, wireless connections are preferred. For a more secure network, wired is preferred over wireless. If you need to travel a long distance or place your system in separate rooms, wireless is advisable.

You would be well served, at a very minimum, to make the connection from the Server to the router a wired connection. For pure reliability, a wired connection best serves a Transwest Equities office.



Heard from the Nerds: “We can’t hack a wired system as easily. Getting that network up in the airwaves puts it into our backyard and on our radar, accessible to all of our fun toys.” Go wired if you can.

SERVER SETUP

When a computer is first unboxed and turned on for use, you will be required to setup the Windows operating system. It is beyond the scope of this manual to lead you through that process. There are numerous other resources to assist you in getting the O/S up and running.

However, what is vital in getting your system fully functional with the protocols used by Transwest Equities are these items:

- User account name
- User account password

User Account Name/Password: When you begin the setup of your Windows O/S, whether it be XP or Vista, you will be prompted to create a User Account Name as well as a password. This is key in terms of Transwest being able to connect remotely to your system and give your system maintenance updates, program updates, bulletins from the home office, as well as troubleshoot all issues you may have.



Windows User Accounts MUST follow these simple rules: Name the user account for its computer's function in the network. If it is the Server computer, simply name the User Account as Server. If it is the Terminal computer, the User Account name should be Terminal. Nothing more. Simply *Server* or *Terminal*. If you are adding a 2nd terminal to the network, name the User Account Terminal2. The next terminal would have User Account Terminal3, etc.

NO PERSONAL INFORMATION SHOULD EVER BE USED IN NAMING CONVENTIONS, INCLUDING PASSWORDS. This means do NOT use any personal names, nick names, pets names, the name of your office, etc. Windows User Accounts should be named SOLELY according to their network function. Passwords are to always be supplied for you from the home office. *transwest987* is currently the password to be used for all Windows User Accounts. Please note it exactly as it is. It is all lower case and no spaces. Please enter it exactly as shown here.

If you enter a user name and/or password that does not prescribe to these parameters, you will be asked to go back and modify those parameters to comport with Transwest's standards. Uniformity demands that all computers adhere to these parameters. Variance is not permitted in any circumstance.

After you have finished setting up Windows the first time you turn on the system, you will probably be prompted by several pre-loaded applications regarding their setup. Simply follow any instructions given as these are superfluous to our purposes (Virus software is applicable but this will be addressed later.)

At this point, you should have turned on the computer for the first time, set up a User Account name and password according to the parameters above, as well as set up any additional software that was preloaded from the factory.

COMMENTS: _____

PRINTERS – Laser: To have a fully functioning networked loan system, a minimum of 2 printers are necessary. One should be a laser printer and the other an Okidata impact printer (for multiple part documents). Additional printers can be added to the network, but are not required. It is suggested that one full set of printers, laser and impact, be installed on the Server computer.

Plug the laser printer into the Server computer USB port and follow the instructions that came in its box. Typically an installation CD will be supplied to install software and drivers. However, Windows may be able to install the drivers without the installation CD. Take time now to read the printer instructions, install it on the Server, and print a test page.

Networking your laser printer: It is possible to share your printer across the network so that any computer on the network can print to that printer. Here's how.

Windows XP:

1. **START** button, **Printers and Faxes**. (*Vista* – START, type "printers" in search box)
2. Look for the printer icon for the laser printer you want to share across the network.
3. Right mouse click the icon. Click on **SHARING**.
4. The Properties box for that printer should come up, with the SHARING tab open.
5. Select the **Share this printer** radio button.
6. Give the printer a unique name identifiable from other computers. For example, if you are sharing the Hewlett Packard 1200 on the Server computer, name the Share name as HP 1200 on Server.
7. Click **OK**.
8. If Windows tells you that the shared printer might not be recognized by some MS-DOS stations, and then asks if you are sure you want to share it anyway, click **YES**.

This printer will now be shared across the network and you will be able to print to it from any other computer that recognizes it. To add this printer on another computer and allow that computer to use it for printing, you will need to go to the Printers and Faxes box again on that computer. Simply 1) click **Add a Printer** from the left side menu, 2) tell Windows that you are adding a network printer, not a local printer, 3) and tell it to **Browse** for it. It should find the printer on the network and ask if this is the one you want to add. If so, add it to your printers. You might have to make Windows search for that specific printer if it can't find it by itself. Since you know the name you gave the printer (from #6 above), you can supply Windows with the printer name to search for.

COMMENTS: _____

PRINTERS – Okidata (impact): follow the same procedure for the Okidata that was used for the laser printer. Sharing the Okidata printer across the network is also done exactly as it was for the laser printer.

COMMENTS: _____

Setting up the laser and impact printers for printing from the TCL loan system is covered under the TCL Loan system heading. It requires special configurations that can only be addressed AFTER the TCL Loan System has been correctly installed. This initial setup just covered setup is to get the printers adequately installed and operating within the Windows operating system.



CHECKPOINT – At this point, you should have the Server computer setup with a User Account Name called **Server** and the password of transwest987. All additional preloaded software should be installed and running. Lastly, you should have the laser and impact printers successfully loaded with test pages printed from each one. To check that you have the printers installed do the following:
Windows XP – Click Start, Printers and Faxes, and look for the 2 printers icons.
Windows Vista – Click the Windows Start button, in the search box type “printers”. The printers box will appear and you can check for printers icons.

Remember, no networking has been done as of yet. We are just focusing on getting the 2 computers set up and running separate from each other. Setting up the **Terminal** computer should be done next.

FINAL CHECKLIST for SERVER SETUP:

- Windows User Account Name: _____
 - User Account Password: _____
 - Laser printer setup: Make & Model _____
 - Okidata printer setup: Model _____
-

TCL LOAN SYSTEM SETUP - SERVER

Setting up the TCL loan system on the Server computer is a rather straightforward procedure . Please follow these simple steps:

- Create TCLDATA folder
- Create TCLNET folder
- Install Insurance Rates look up file
- Install TCL program files
- Get StartC, StartF, Loan and Collection modules from Tim Lee
- Install LogMeIn Remote Access software
- Create Desktop Shortcuts
- Setup printers

CREATE TCLDATA folder: This folder will contain all of the TCL loan system database files. You must create it on the C: drive of the Server computer. Here's how.

Start Windows Explorer:

1. Click **START**, then click **RUN**.
2. In the **Open** box, type **Explorer**, and then click **OK**
3. On the top toolbar, click the **FOLDERS** button.
4. In the left-hand Window pane of Explorer, click the plus(+) sign beside the label **My Computer**. This should show you all of the drives found on your computer. They should cascade down under the My Computer label.
5. Click **Local Disk (C:)** under **My Computer**. This will show all of the folders on the C: drive in both the left and right window panes.
6. With Local Disk (C:) still highlighted on the left, go all the way up to the very top toolbar and click on the left most word **File**. This brings up a Sub menu.
7. Move your mouse to **New**, then click **Folder**.
8. You will see a new folder that has been created on the C: drive in the right hand window pane. It's name is called "New Folder" and it is highlighted blue and waiting to be renamed.
9. Without moving your mouse or any other actions, while the text "New Folder" is still highlighted, type "TCLDATA" and hit **return**. You should see that the name of the folder is now changed to TCLDATA.

COMMENTS: _____

CREATE TCLNET folder: Follow the exact same instructions for the TCLDATA folder, but instead, name the new folder TCLNET.

COMMENTS: _____

INSTALL Insurance Rates look up file:

1. Go to www.TranswestEquities.net website
2. Under Software Updates on the left hand Navigation Menu, click on **TCL Loan System (DOS)**.
3. Look for “**Insurance Lookup Tables Zip File – click HERE.**”
4. Click on ‘**click HERE**’
5. This will prompt you to Open, Save, or Cancel the zip file. Click **Save** to store the zip file ‘insrates’.
6. A Save As box appears. Click **Desktop** on the left menu to select the desktop as the place for storing the zip insurance file.
7. Now click **Save** to actually store the file on your desktop.
8. Once the files is saved, right mouse click on the zip file called ‘**insrates**’ that is now sitting on your desktop.
9. On the menu that appears, select **Extract all**. This will open the Windows Extraction Wizard.
10. Click **Next**
11. The Select a Destination box appears. Click the **BROWSE** button at the top right.
12. A smaller Select a Destination box appears. Click on **My Computer**
13. Click on **Local Disk C:**
14. Click on the **tcldata** folder.
15. Click **OK**.
16. Click Next to finally extract the insurance files to the tcldata directory.

COMMENTS: _____

INSTALL TCL Program Files:

To install the TCL loan program, you will follow the same steps as outlined above in the installation of the insurance rates lookup file. There are 2 exceptions.

1. First, look for the words “**TCL Program Files – click HERE**” on the **TCL Loan System (DOS)** web page. This is the zip file that contains the TCL program files.
2. Second, when extracting the files to your C: drive, you will extract them to the TCLNET directory you created earlier, NOT TCLDATA.

COMMENTS: _____

Get StartC, StartF, Loan and Collection modules from Tim Lee: The TCL Loan System will not operate without these modules. These modules contain the office specific information for your location, address, company name, accounting ID etc. You will need to contact Tim Lee and he will be able to download these modules to your computer. These modules cannot be loaded until you have loaded the LogMeIn remote access software that allows outside contact with your system by the home office and Tim Lee. We will walk through this installation next.

COMMENTS: _____

□ INSTALL LOGMEIN Remote Access software: Transwest Equities is currently using a 3rd part remote access software application that allows the home office to connect to all the computers out in the field. This software application is called LogMeIn. LogMeIn uses the internet as the portal for communication between Host and Remote terminals. The internet must be operational on your computer for LogMeIn to be installed, running, and operational. Once the internet is configured for your computer, begin the installation of the LogMeIn application by going again to the Transwest Equities website, www.TranswestEquities.net.

Once you are logged in to the home page, click on the IDAHO state label on the upper left-hand navigation menu. Regardless of the in which you are doing business, this is the page for ALL LogMeIN installations.

On the Idaho page are complete instructions for the installation of LogMeIn. You MUST read those instructions thoroughly. They provide essential information for correct installation of the application. Your exact installation might vary somewhat from those instructions on the Idaho page, but you should be able to gather the requisite knowledge from that page of what is needed for a positive install and apply it to your specific situation.



3 VITAL Components of the LogMeIn installation:

1. **Description for your Computer**– Please follow the instructions on the Idaho page when entering the computer description. You MUST name your LogMeIn computer using City, Company Name, and Computer Network position as the descriptors. For example, Burley Ace Financial Server uses Burley as the city, Ace Financial as the company name, and it is the Server computer on which the LogMeIn is being installed.
2. **Access Code** – You MUST enter transwest987 if you are prompted for an Access Code. If you are not prompted, your Windows password will be used by LogMeIn.
3. **Virus Protection Software** – LogMeIn will NOT work if your virus protection software blocks the port access. Therefore, when you first install LogMeIn, you will probably be prompted by the virus software that LogMeIn is trying to access the internet. You will be asked whether or not to allow LogMeIn to do so. Always answer YES, to let it ALWAYS access the internet. No restrictions should be placed on LogMeIn.

COMMENTS: _____



□ CHECKPOINT – At this point, you should have the Server computer setup with an appropriately named User Account profile with a Transwest Equities approved password. All additional preloaded (factory) software should be installed and running or uninstalled altogether, all printers and printer drivers installed, test pages printed correctly for each printer, and finally, remote access software LogMeIn has been installed so the home office can access your Server computer for the necessary uploads.

COMMENTS: _____

TERMINAL SETUP

Setting up the Terminal computer for the network should be done exactly as the initial Server set up. That is, follow the prescribed protocol for the set up of the User Account name and password. The User Account name should be named ***Terminal*** and the password should be the same as the Server.

The variances between the Server and Terminal computers will come later on in the set up of the network between the 2 computers as well as the TCL and Everest applications.



CHECKPOINT – At this point, you should have the Terminal computer setup with an appropriately named User Account profile with a Transwest Equities approved password. All additional preloaded (factory) software should be installed and running or uninstalled altogether, all printers connected, drivers installed, and test pages printed correctly for each printer, and finally, remote access software LogMeIn has been installed so the home office can access your Terminal computer for the necessary uploads.

COMMENTS: _____

APPENDIX A

Wireless vs. Wired

Network technologies come in two types:

- **Wireless** - radio wave communication
- **Wired** - communication through data cables (most commonly Ethernet-based)

Why Choose Wireless?

Similar to cell phones and cordless telephones, wireless networks use radio waves to communicate rather than cables. The primary advantage of a wireless network is the portability, mobility, and freedom from the restriction of wires or a fixed connection. The benefits of having a wireless network include:

- Mobility and freedom - work anywhere
- No restriction of wires or a fixed connection
- Quick, effortless installation
- No cables to buy
- Save cabling time and hassle
- Easy to expand

Also known as Wi-Fi, or Wireless Fidelity, wireless networks allow you to use your network devices anywhere in an office or home, even out on the patio. You can check your e-mail or surf the Internet on your laptop anywhere in your house. There is no need to drill holes in the wall and install Ethernet cables. You can network anywhere - without wires. Outside your home, wireless networking is available in public "hotspots," such as coffee shops, businesses, hotel rooms, and airports. This is perfect for those of you who do a lot of traveling.

Why Choose Wired?

Wired networks are the original and oldest form of networking. Wired networking technology found today is known as Ethernet. The data cables, known as Ethernet network cables or wired (CAT5) cables, connect computers and other devices that make up the networks. Wired networks primary benefits are realized when you need to move large amounts of data at high speeds, such as professional-quality multimedia. The benefits of having a wired network include:

- Relatively low cost
- Offers the highest performance possible
- Fast speed - standard Ethernet cable up to 100Mbps.
- Faster speed - Gigabit Ethernet cable up to 1000Mbps.
- More secure and 'hack' resistant

APPENDIX B

Important Rules for Use of a Computer in a Transwest Equities Office

SOFTWARE – Any additional programs/software that you want to load onto a Transwest Equities computer, additional to those provided by the computer manufacturer at the time of purchase, MUST be approved by the home office. There are NO exceptions to this. Every software application loaded onto a computer slows down it's performance as well as opens it up to potential hacking and virus attacks. If software is found to be loaded on any computer without prior approval, it is subject to immediate removal without notification.

PERSONAL DATA – All data contained on any computer in any Transwest Equities office is subject to random review and removal. This includes personal computers brought in by employees. Do not store any sensitive personal information on any computer within the office of a Transwest Equities company.

VIRUS PROTECTION – Most new computers come preloaded with some form of Virus Protection software. This is a vital tool in the protection of the network system. You MUST keep all virus software licenses and virus definition files up to date. If you are prompted by your Protection Software that it is about to expire, follow its instructions on renewal. Typically, new computers come with a 30, 60, or 90 day trial period, after which, you must purchase the licensing for another year or more. Please purchase that additional license which will assist in maintaining viral protection for that computer.

The virus protection software should be a complete suite of protection. That is, it should protect not only against email viruses, but also Trojan horses, spyware, adware, phishing, etc. You should set the application up to automatically update it's virus definition files, to automatically scan incoming and outgoing emails, automatically update it's own software, and do regular periodic scheduled scans of your system. Once you set it up to automatically do these things, and you purchase the licensing for a few years, you can forget about it. It should be an ever-present yet invisible shield of protection, always current in it's defenses.

PORNOGRAPHIC and ADULT ONLY WEBSITES/MATERIALS – No adult/pornographic website/material/images of any kind is ever permitted on a Transwest Equities computer. Any employee who views/stores any offending material or website is subject to immediate dismissal.

SURFING THE INTERNET DURING BUSINESS HOURS– Use of the internet should be limited to relevance to Transwest's core business. Social networking places like Face Book and My Space should not be visited unless related to a customers account. There are thousands of websites that are havens of malicious code. When one of those sights is visited by a computer, that malicious site stores their web pages on the visiting computer's hard drive. And therefore, the visiting computer is at severe risk of potential attack, despite virus protection.