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Protecting Yourself with Norton Personal Firewall Mark Greco Version 1.2b

Introduction

With the boom of the Internet, protection of your PC and the information that it contains has become more and more crucial. Now that personal home users have a full time presence on the Internet with DSL and Cable Moderns they too have to worry about protection like the corporations do.

The corporations also have something new to worry about as home user full time connections increase. Those home users are going to want to connect to the office network so they can work from home and spend more time with their families. Without protection and these home users considered a part of the network when their connected to it that's a lot of security holes to worry about. The road warrior connections are also on the rise and those dial-up connections also need to be protected as well.

There are many firewalls on the market that can help the home user protect their system and give their system administrators peace of mind. Mcafee's "GuardDog," Zone Labs' "ZoneAlarm," NetworkICE "BlackICE Defender" and Symantec's "Norton Personal Firewall" to name a few. This paper will cover Norton Personal Firewall 2001. I will discuss installation, configuration, and issues that may arise supporting this product.

Installation

After putting the CD and autorun starts you will be shown the following screen:



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Click Install Norton Personal Firewall and the installation program will begin. The first screen you will be shown is the welcome screen.



Click yes that you accept the license agreement and then click next to continue.

🛃 Norton Personal Firewall Setup		
License Agreement You must agree with the license displayed below to proceed	d.	
NOTICE:		
THE CONDITION THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS LICENSE AGREEMENT. PLEASE READ THESE TERMS CAREFULLY. IF YOU DO NOT AGREE TO THESE TERMS, PLEASE PRESS THE "CANCEL" BUTTON TO EXIT INSTALL AS SYMANTEC IS UNWILLING TO LICENSE THE SOFTWARE TO YOU, IN WHICH EVENT YOU SHOULD RETURN THE FULL PRODUCT WITH PROOF OF PURCHASE TO THE DEALED FROM WHOM IT WAS ACCUIDED WITHIN SITTY DAYS		
OF PURCHASE, AND YOUR MONEY WILL BE REFUNDED.	1	
I go not accept the License Agreement I go not accept the License Agreement		
< <u>B</u> ack <u>N</u> ext > Cancel		

You will then be asked if you want set up to create the firewall rules automatically or if you want the rules added each time an application is ran for the first time. The easiest way to configure the firewall rules is to have set up create them automatically so that the defaults are created and after Norton is installed add any specific rules that you want the firewall to use.



If you are running Norton SystemWorks then you can integrate the firewall. If you are not then answer no to the following question.



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Answer yes to the following question to run Live Update after installation so that your firewall will be running latest version of Norton Personal Firewall.

🖟 Norton Personal Firewall Setup		
Launch LiveUpdate after install Update with the latest content.		
LiveUpdate checks for Norton Personal Firewall updates after the installation is complete. If an update exists, LiveUpdate automatically downloads and installs it. We recommend that you run LiveUpdate after Norton Personal Firewall installs.		
Would you like to run LiveUpdate after Setup completes?		
 Yes, run LiveUpdate after setup completes. No, do not run LiveUpdate after setup completes. 		
< <u>B</u> ack <u>N</u> ext > Cancel		

Choose where you want the program installed.

况 Not	ton Personal Firewall Setup
A.	Destination Folder The following information describes the install location.
1	The wizard will install the files for Norton Personal Firewall in the folder specified below.
1	o install into a different folder, click the Browse button, and select another folder.
, I	You can choose not to install Norton Personal Firewall by clicking Cancel to exit the vizard.
	-Destination Folder c:\Program Files\Norton Personal Firewall\
	< <u>B</u> ack <u>Next></u> Cancel

As part of GIAC practical repository.

After clicking next the firewall program will be installed and the firewall rules will be set up.

🛃 Norton Personal Firewall Setup	
Start Installation	20%
Are you ready to have the wizard begin the install?	
Press the Next button to begin or the Back button to re-enter the installation information.	
< <u>B</u> ack <u>Next</u> Ca	incel

Register the program.



Connect to the Internet if you do not have a full time connection and Live Update will run and check to see if there are any updates for Norton Personal Firewall programs.

🚆 Live Update		
	Welcome to LiveUpdate LiveUpdate checks for updates to your Symantec products. You can decide which updates you want to install. Image: Image	100
The second	LiveUpdate will use the Internet to get yourOnfigure	
	Click Next to see what updates are available.	
	K <u>B</u> ack <u>N</u> ext> Cancel Help	

Click next to download and install any updates that are found.





You will receive the following screen after the up dates have been installed.

You will be told that you need to reboot for updates to complete. Click OK.

Reboot	Required 🔀
	Some of the updates that were just installed require that you reboot your machine now. Please save all unsaved data and then press the OK button to reboot your machine.

The next window is an error message that the reboot failed, that's ok because the original setup has not completed yet. Click OK.

Reboot.	Attempted Failed	X
8	LiveUpdate was unable to reboot your machine.	. Please reboot your machine manually.
	[OK]	

Next the readme file will be shown, read it and click next when you are finished. Finally the Successful Installation screen will be shown, click finish and you will be prompted to reboot. Click yes and the installation will be complete.

Configuration

The first time you boot your computer after installing Norton firewall the following screen will come up.



This is the status screen. The security line is telling you how many applications and exploits are being blocked access and how many are being allowing access. The privacy line is showing how many cookies and referer fields are being blocked and accepted. Referer fields come into play when you click a link, and your browser tells the web server where the link was that you used to get to it. Later we will go over how you can configure the firewall to handle referer fields so that the web server will believe that you just typed in the URL. This way the web server will not to try to track your information.

On the left hand side of the window there are three options status, security, and privacy. After clicking security you will get the following screen.



This screen allows you to set what level of security you want the firewall to run with. The minimal level is for users that need only minimal protection, it automatically blocks known threats and closes access ports to hackers. Medium security level is recommended for most users. The previous screen shot shows what it protects against. The High security level is for expert users who are familiar with what type of access they want to allow to their computer. It protects the PC against most attacks with frequent alerts and automatically blocks all Internet access until permitted by the user.

The most secure setting and easiest to administer is medium, this will block all applications that behave like a known malicious program while allowing other applications to run normally. Norton subscription has a list of known, reliable programs that require communication over the Internet. By running Live Update frequently your list of these applications will be up to date and keep the inexperience user out of trouble. Norton will prompt to create a rule when an application is ran that is not in its list and may be a trojan. The Firewall Rule Assistant is a wizard that helps configure these rules.

When Norton Personal Firewall encounters an application for which it has no rules set up the Firewall Rule Assistant appears. The Firewall Rule Assistant helps you decide what to do with the application requesting to access to the Internet. It will show you the name of the application and ask you if you wish to create a rule. It will also give you the option to allow or block it one time only, so you can research the application before creating a rule for it. When setting the security level is set to High, the Firewall Rule Assistant will show up with more frequency and an inexperienced user may not know how to answer the questions. By setting the security level at medium you are going to have the best security with little administration, and avoid having an inexperienced user creating a security hole in the firewall.

You can also create a custom level by clicking the button at the bottom of the screen. You will get the following options.

Customize Security Settings	
Customize Security Settings	
Tell me more	
Personal Firewall	
High: Block everything until you allow it	
Java Applet Security	
None: Allow Java Applets	
ActiveX Control Security	
None: Allow ActiveX Controls	
Enable Personal Firewall Alerts	
☑ Silently Stealth Unused Ports	
OK Cancel	

Next click the privacy option to get the following screen.



This screen allows you to configure what privacy level you want the firewall to run at. Minimal privacy is for users that want convenience, cookies are not blocked and confidential info may be entered on web forms and your browsing is concealed from web sites. The medium privacy level is recommended for most users and its settings are shown in the previous picture. For users who are highly concerned about they're personal information there's the high privacy level. High privacy is the safest way to operate, but the least convenient, it blocks all personal and browsing info from the Internet and cookies require special handling. The medium setting is the best balanced, it allows cookies and still allows you to fill out Internet forms. This is the setting that should be used.

By clicking the Confidential Info button at the bottom of the screen you can set up your private information that you which to hide.

onfidential Informati	ion	2	
		Confidential Info	
		Tell me more	
Norton Personal Firewall protects confidential information you identify here from leaking onto the Internet, whether by accident or otherwise.			
Confidential Informa	tion		
Description	Туре	Information	
My email address	Email Address	myaddress@yahoo	
Add <u>H</u> emove <u>M</u> odify			
Note: Norton Personal secure web sites. How is safe.	Firewall cannot block vever, secure web sites	confidential information on already ensure your data	
		ОК	

After clicking the Add button you choose what type of information it is, give it a description, and what that information is. Because Norton Personal Firewall blocks the information exactly the way you enter it you should only type in a portion of the information. For example if your protecting a credit card number it can be entered 1234 5678 9012 1234 or 1234567890121234, so by only entering the last four numbers you are protecting those number and the entire number overall. This will prevent that part of the information from always being sent to unsecured web sites.

Modify Confidential Information			
Modify C	Confidential Information		
	Tell me more		
Enter the confidential inform For example, the last four c "2011".	nation you wish to protect here. ligits of your credit card number,		
Type of information to protect:	Email Address		
<u>D</u> escriptive name:	My email address		
Information to protect:	myaddress@yahoo.com		
	OK Cancel		

The other option on the privacy screen is creating a custom level just as there was on the firewall configuration screen.

Customize Privacy Settings
Customize Privacy Settings
Tell me more
Confidential Information
High: Block outgoing confidential information
<u>C</u> ookie Blocking
Medium: Prompt me each time
Enable Browser Privacy
Enable Secure Connections (https)
OK Cancel

The last part of the configuration of your firewall takes place after you click the options button at the top of the screen.



This screen gives you a couple of different options, you can view your event log or statistics, your can clear the statistics, and configure the filter rules that the firewall will use. I'll skip showing the event log and statistics, but let's take a look at the filter rules because this is an important part of the configuration process.



The first screen allows you to set up which ports you want to allow HTTP to use. It also allows you to choose to block IGMP requests to your IP address. If you enable The Stealth Blocked Ports option, than any request made to your ports from the Internet will not respond. This option should be enabled, because if you do not have it enabled than any request made to your ports will respond and pass along an important piece of information to the person making the request, that the IP is live. You also have the option to block fragmented packets. The last option is create firewall rules automatically. This option should be enabled to allow applications that do not have a rule to be created when the application makes a request to access the Internet. Having this option enabled will make support easier because you don't have to create a rule manually every time you add a new application.

🕼 Norton Personal Firewall Advanced Options 🛛 🕐 🗙		
Firewall Rule	Rule Action Summary	
Default Inbound ICMP	🖳 🕈 ICMP: Destination Unreachable 📄	
Default Outbound ICMP	🚇 🔶 ICMP: Any Type	
Default Inbound DNS	🚇 🕈 domain 🛛 🔜 📘	
Default Outbound DNS	🚇 🕈 domain	
Default Inbound Bootp	🚇 <table-cell-rows> bootpc</table-cell-rows>	
Default Outbound Bootp	🚇 🔶 bootp	
Default Inbound NetBIOS Name	💂 🛞 nbname	
Default Inbound NetBIOS	💂 🛞 nbdatagram	
Default Outbound NetBIOS	🚇 🕈 nbdatagram, nbname, nbsession	
Default Inbound Loopback	🚇 <table-cell-rows> localhost</table-cell-rows>	
Default Outbound Loopback	🚇 🔶 localhost	
Block access to secure sites	💂 🛞 https	
Default Block Inbound and Outbound ICMP	💂 😚 ICMP: Any Type	
Default Block NetBIOS Networking	💂 🛞 nbsession	
🔽 Default Block Back Orifice 2000 Trojan	🚇 🛞 Back-Orifice, Back-Orifice-2000 🔽 👘	
A <u>d</u> d <u>M</u> odify <u>R</u> emove <u>I</u> est ↓ ∲		
OK Cancel Angle Help		

This next screen is the filter rules that the firewall uses to protect your system. The screen shows whether the service is incoming or outgoing and whether or not it is allowed or blocked. As you can see Back-Orifice is in the listing as well as a lot of other well-known exploits. These are created for you by default.

Modify F	irewall Rule		? ×	
<u>N</u> ame:	Default Block Back Or	ifice 2000 Trojan	ок	
Action:	Block	T C.	ancel	
Direction:	Inbound	T		
<u>P</u> rotocol:	TCP or UDP	T		
<u>C</u> ategory:	NIS System Protection			
Application Service Address Logging				
Remot Sir Lis	e Service Igle service tof services y service	Local Service Single service Service range List of services Any service Back-Orifice Back-Orifice-2000 Back-Orifice-2000-1 Add	12	

The screen above is what will be shown after clicking add. You can name the filter whatever you want. Your action choices are block, allow, or ignore. Next you choose the direction it is suppose to act against inbound, outbound, or either. The protocol is required and your choices are TCP, UDP, ICMP, or TCP and UDP. Next is the category that is used by the service you are blocking, some of your options are email, newsgroup, games, web browsers, etc. The defaults are acceptable for the rest of the configuration and you are now protected against an exploit or service that you were trying to block.

Web Circumell Others
Web Friewall Uther (Defaults) windowsupdate.microsoft.com Use these rules for www.nortonweb.com Cookies Block Block by Norton Browsing Privacy Referer Block Block by Norton Browser (User-agent) Permit Blocked by Norton E-mail (From) Block Block by Norton Norton Personal Firewall will alert you with a Rule Assistant.
OK Cancel Apply Help

This is the final screen in the configuration process. This screen allows you to configure what the firewall should do when you visit a particular web site. You can block or accept cookies. You can allow or deny ActiveX and Java scripts to run. This is a good feature because it allows you to configure by site. If you run an Intranet site that runs Java scripts, then you can put it in here while still protect yourself from Java scripts on the Internet.

Norton's firewall allows average users protection by allowing them to use the defaults. It automatically updates its rules and protects the user for their occasional Internet use. It also allows advanced user to configure the firewall more to their liking and against more advanced attacks. This is why Norton firewall is a good product to use for remote and home users.

Conclusion

Norton Personal Firewall is an excellent solution for personal users. It should be also be used by corporations that want to provide Internet protection for its road warriors and remote users. It's a product that inexperience users can install and forget about, yet powerful enough for system administrators to configure for their corporate networks. For those of you who are going to use this product I hope this document helps with your installation and configuration.

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