

Computer Science E-1



Understanding Computers and the Internet

Lecture 9: Security, Continued

Wednesday, 15 November 2006

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Agenda



- Defenses
 - Firewalls
 - Proxy Servers
 - VPNs
 - Cryptography
 - rot13
 - DES
 - RSA
 - AES
 - Virus Scanners
 - Product Registration and Activation
 - Scrubbing

Defenses



Firewalls

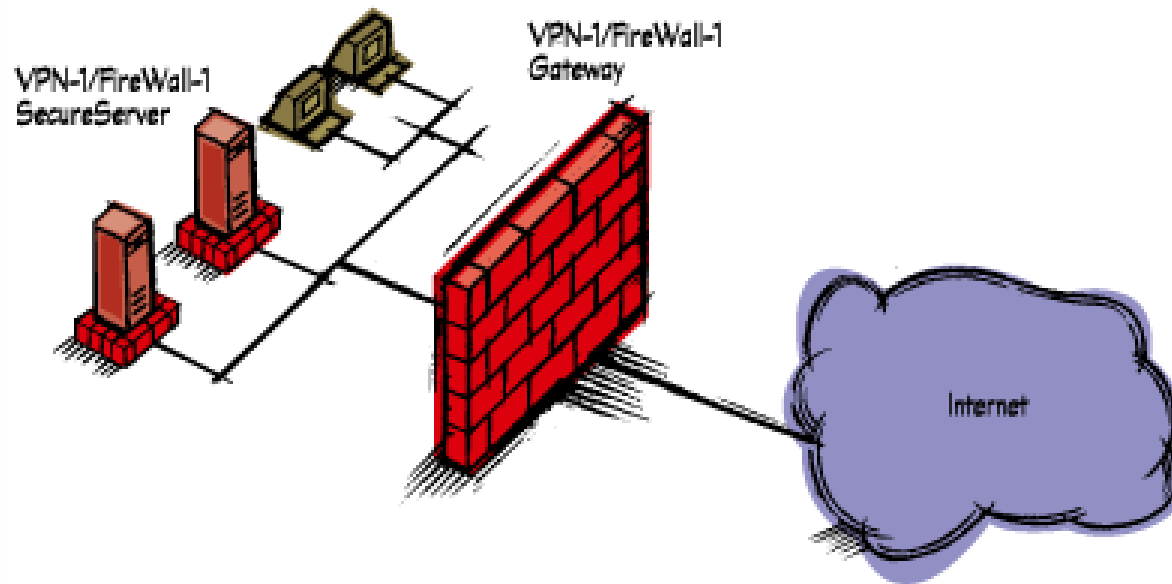


Image from <http://www.checkpoint.com/products/protect/secureserver.html>, copyright © Check Point Software.

Defenses

VPNs

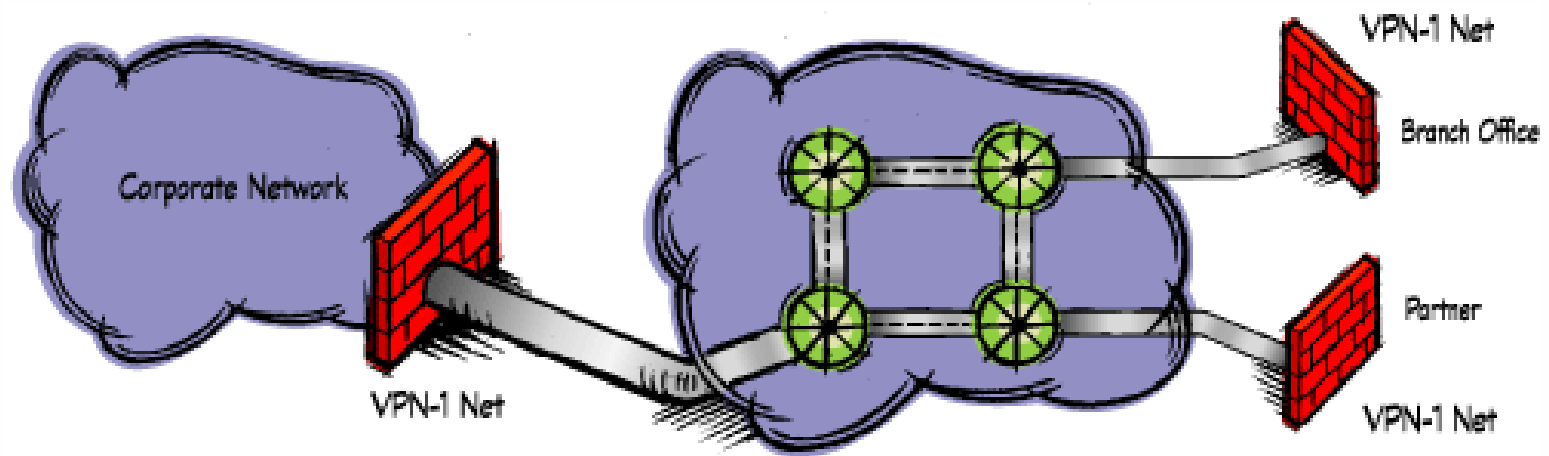


Image from http://www.checkpoint.com/products/connect/vpn-1_net.html, copyright © Check Point Software.

Defenses

Proxy Servers

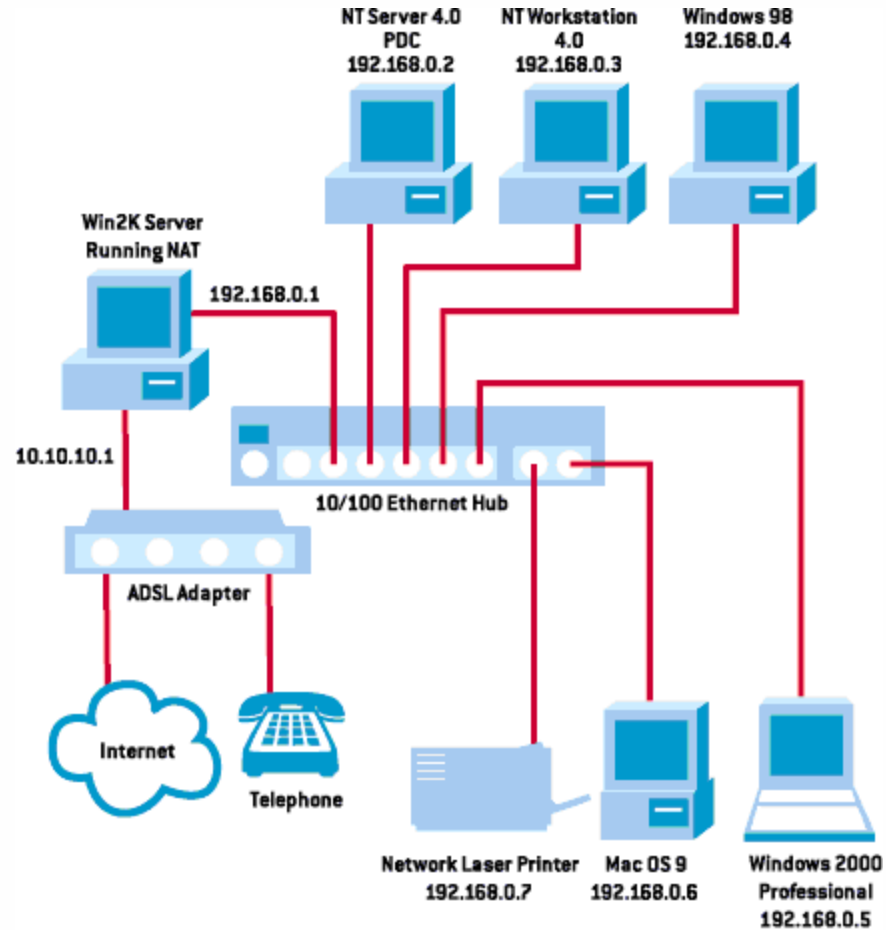


Image from <http://www.win2000mag.com/Articles/Index.cfm?ArticleID=7882>, copyright © Penton Media, Inc.

Defenses



Cryptography

Or fher gb qevax lbhe binygvar!



Defenses

Virus Scanners

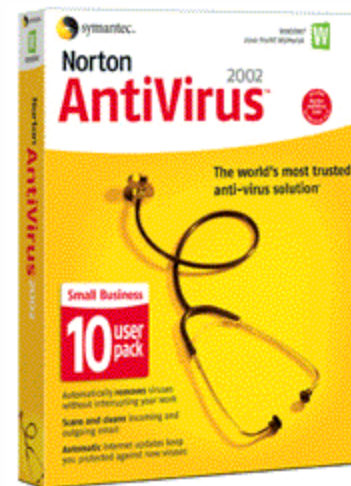
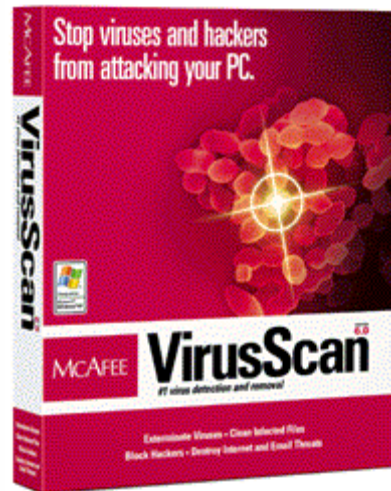


Image from <http://www.otr.com/ciphers.html>.

Defenses



Product Activation and Registration

The screenshot shows a classic Windows 'Setup' dialog box with a blue title bar. The main area has a light gray background. On the left, there is a teal rectangular area containing an illustration of a desktop computer (monitor and tower) and several CD-ROMs. To the right of this area, the text 'User Information' is displayed in a bold, italicized serif font. Below the title, the instruction 'Please enter your information below.' is shown. There are three input fields: 'User Name' (a single wide box), 'Company' (a single wide box), and 'CD Key' (two boxes separated by a hyphen). At the bottom of the dialog, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a darker border.

Setup

User Information

Please enter your information below.

User Name

Company

CD Key -

Find the CD key on your Certificate of Authenticity.

< Back Next > Cancel

Defenses



Product Activation and Registration



Defenses

Product Activation and Registration



The screenshot shows the 'Activate Windows by phone' window. It has a blue header with the title 'Activate Windows by phone' and the Windows logo. Below the header, it says 'Just four steps, and you're done...'. Step 1 is a dropdown menu labeled 'Select your location'. Step 2 provides phone numbers for toll-free and toll calls. Step 3 shows an installation ID: '005501-986120-436393-698384-554695-097661-615182-544441-81'. Step 4 is a seven-character confirmation ID with boxes labeled A through G. At the bottom, there are three buttons: 'Change Product key', 'Remind Me Later', and 'Next'.

Activate Windows

Activate Windows by phone

Just four steps, and you're done...

Step 1:

Step 2: Call a number below to speak with a customer service representative:
Toll-free number:
Toll number:

Step 3: Provide the customer service representative with the following installation ID:
005501-986120-436393-698384-554695-097661-615182-544441-81
(Click **Change product key** only if requested to do so by the customer service representative)

Step 4: Type the confirmation ID that the customer service representative gave you:

A B C D E F G

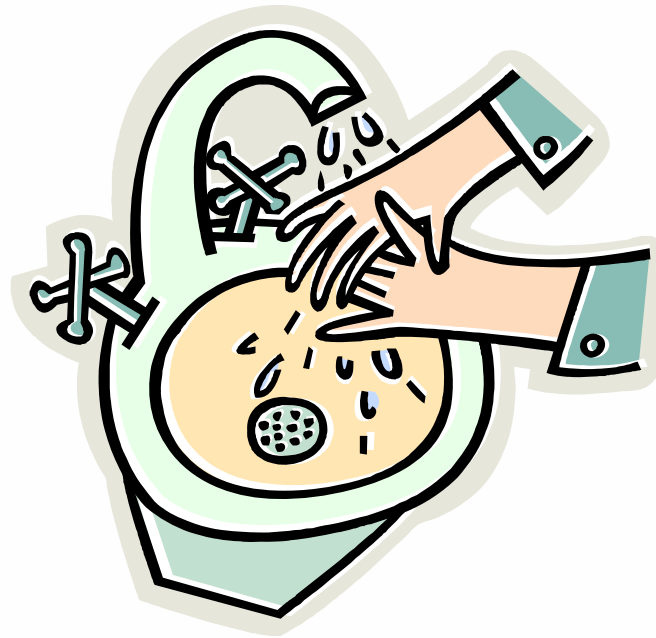
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To continue, click Next.

Defenses



Scrubbing





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