



# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for ZYXEL ZYWALL 5. You'll find the answers to all your questions on the ZYXEL ZYWALL 5 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

**User manual ZYXEL ZYWALL 5**  
**User guide ZYXEL ZYWALL 5**  
**Operating instructions ZYXEL ZYWALL 5**  
**Instructions for use ZYXEL ZYWALL 5**  
**Instruction manual ZYXEL ZYWALL 5**

## *ZyWALL 5/35/70 Series*

*Internet Security Appliance*

### ***User's Guide***

Version 4.02  
3/2007  
Edition 1

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**ZyXEL**  
www.zyxel.com



[You're reading an excerpt. Click here to read official ZYXEL ZYWALL 5 user guide](http://yourpdfguides.com/dref/2434430)  
<http://yourpdfguides.com/dref/2434430>

**Manual abstract:**

· Supporting Disk Refer to the included CD for support documents. · ZyXEL Web Site Please refer to [www.zyxel.com](http://www.zyxel.com) for additional support documentation and product certifications. User Guide Feedback Help us help you. Send all User Guide-related comments, questions or suggestions for improvement to the following address, or use e-mail instead. Thank you! The Technical Writing Team, ZyXEL Communications Corp., 6 Innovation Road II, Science-Based Industrial Park, Hsinchu, 300, Taiwan. E-mail: [techwriters@zyxel.com](mailto:techwriters@zyxel.com).

tw ZyWALL 5/35/70 Series User's Guide 3 Document Conventions Document Conventions Warnings and Notes These are how warnings and notes are shown in this User's Guide. Warnings tell you about things that could harm you or your device. Notes tell you other important information (for example, other things you may need to configure or helpful tips) or recommendations. Syntax Conventions · The ZyWALL 5/35/70 series may be referred to as the "ZyWALL", the "device" or the "system" in this User's Guide. · Product labels, screen names, field labels and field choices are all in bold font.

· A key stroke is denoted by square brackets and uppercase text, for example, [ENTER] means the "enter" or "return" key on your keyboard. · "Enter" means for you to type one or more characters and then press the [ENTER] key. "Select" or "choose" means for you to use one of the predefined choices. · A right angle bracket ( > ) within a screen name denotes a mouse click. For example, Maintenance > Log > Log Setting means you first click Maintenance in the navigation panel, then the Log sub menu and finally the Log Setting tab to get to that screen.

· Units of measurement may denote the "metric" value or the "scientific" value. For example, "k" for kilo may denote "1000" or "1024", "M" for mega may denote "1000000" or "1048576" and so on. · "e.g.," is a shorthand for "for instance", and "i.e.," means "that is" or "in other words". 4 ZyWALL 5/35/70

Series User's Guide Document Conventions Icons Used in Figures Figures in this User's Guide may use the following generic icons. The ZyWALL icon is not an exact representation of your device. ZyWALL Computer Notebook computer Server DSLAM Firewall Telephone Switch Router ZyWALL 5/35/70 Series User's Guide 5 Safety Warnings Safety Warnings For your safety, be sure to read and follow all warning notices and instructions.

· Do NOT use this product near water, for example, in a wet basement or near a swimming pool. · Do NOT expose your device to dampness, dust or corrosive liquids. · Do NOT store things on the device. · Do NOT install, use, or service this device during a thunderstorm. There is a remote risk of electric shock from lightning. · Connect ONLY suitable accessories to the device. · Do NOT open the device or unit. Opening or removing covers can expose you to dangerous high voltage points or other risks. ONLY qualified service personnel should service or disassemble this device. Please contact your vendor for further information.

· Make sure to connect the cables to the correct ports. · Place connecting cables carefully so that no one will step on them or stumble over them. · Always disconnect all cables from this device before servicing or disassembling. · Use ONLY an appropriate power adaptor or cord for your device. · Connect the power adaptor or cord to the right supply voltage (for example, 110V AC in North America or 230V AC in Europe).

· Do NOT allow anything to rest on the power adaptor or cord and do NOT place the product where anyone can walk on the power adaptor or cord. · Do NOT use the device if the power adaptor or cord is damaged as it might cause electrocution. · If the power adaptor or cord is damaged, remove it from the power outlet. · Do NOT attempt to repair the power adaptor or cord. Contact your local vendor to order a new one.

· Do not use the device outside, and make sure all the connections are indoors. There is a remote risk of electric shock from lightning. · CAUTION: RISK OF EXPLOSION IF BATTERY (on the motherboard) IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS. Dispose them at the applicable collection point for the recycling of electrical and electronic equipment. For detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the store where you purchased the product. · Do NOT obstruct the device ventilation slots, as insufficient airflow may harm your device. · Fuse Warning! Replace a fuse only with a fuse of the same type and rating. This product is recyclable. Dispose of it properly.

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. 555 Figure 314 Menu 1: General Setup (Bridge Mode) ....

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..... 556 Figure 315 Menu 1.

1: Configure Dynamic DNS .....

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... 557 Figure 316 Menu 1.1.1: DDNS Host Summary .....

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... 558 Figure 317 Menu 1.

1.1: DDNS Edit Host .....

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..... 559 *Figure 318 MAC Address Cloning in WAN Setup* .....

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. 561 *Figure 319 Menu 2: Dial Backup Setup* ....

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563 *Figure 320 Menu 2.1: Advanced WAN Setup* .....

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... 564 *Figure 321 Menu 11.3: Remote Node Profile (Backup ISP)* .

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.. 575 Figure 328 Menu 3.1: LAN Port Filter Setup .....

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. 576 Figure 329 Menu 3: TCP/IP and DHCP Setup .....

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576 Figure 330 Menu 3.2: TCP/IP and DHCP Ethernet Setup ....

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.... 577 Figure 331 Menu 3.2.1: IP Alias Setup ....

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... 579 *Figure 332 Menu 4: Internet Access Setup (Ethernet) .....*

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. 582 *Figure 333 Internet Access Setup (PPTP) ....*

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.. 584 *Figure 334 Internet Access Setup (PPPoE) ...*

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. 585 *Figure 335 Menu 5: DMZ Setup ....*

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.. 587 *Figure 336 Menu 5.1: DMZ Port Filter Setup .....*

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. 587 Figure 337 Menu 5: DMZ Setup .....

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... 588 Figure 338 Menu 5.2: TCP/IP and DHCP Ethernet Setup .

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..... 588 Figure 339 Menu 5.2.1: IP Alias Setup .

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..... 589 38 ZyWALL 5/35/70 Series User's Guide List of Figures Figure 340 Menu 6: Route Setup ....

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. 591 Figure 341 Menu 6.1: Route Assessment .....

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.... 591 Figure 342 Menu 6.2: Traffic Redirect .....

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... 592 Figure 343 Menu 6.3: Route Failover .....

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... 593 Figure 344 Menu 7.1: Wireless Setup .

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.. 595 Figure 345 Menu 7.1.1: WLAN MAC Address Filter .....

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. 597 Figure 346 Menu 7: WLAN Setup ....

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..... 598 Figure 347 Menu 7.2: TCP/IP and DHCP Ethernet Setup ...

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..... 599 Figure 348 Menu 7.2.1: IP Alias Setup ...

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.... 600 Figure 349 Menu 11: Remote Node Setup .

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*601 Figure 350 Menu 11.1: Remote Node Profile for Ethernet Encapsulation ....*

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*602 Figure 351 Menu 11.1: Remote Node Profile for PPPoE Encapsulation .....*

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*.. 604 Figure 352 Menu 11.1: Remote Node Profile for PPTP Encapsulation ..*

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*..... 606 Figure 353 Menu 11.1.2: Remote Node Network Layer Options for Ethernet Encapsulation ..*

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*... 607 Figure 354 Menu 11.1.4: Remote Node Filter (Ethernet Encapsulation) .....*

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*. 609 Figure 355 Menu 11.1.4: Remote Node Filter (PPPoE or PPTP Encapsulation) ..*

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*. 609 Figure 356 Menu 12: IP Static Route Setup ....*

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.... 612 Figure 357 Menu 12.  
1: Edit IP Static Route .....

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... 612 Figure 358 Menu 4: Applying NAT for Internet Access ..

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..... 616 Figure 359 Menu 11.1.2: Applying NAT to the Remote Node ..

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. 616 Figure 360 Menu 15: NAT Setup .....

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.. 617 Figure 361 Menu 15.1: Address Mapping Sets ..

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.. 618 Figure 362 Menu 15.1.255: SUA Address Mapping Rules .

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. 618 Figure 363 Menu 15.1.1: First Set .....

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..... 620 Figure 364 Menu 15.1.1.  
1: Editing/Configuring an Individual Rule in a Set .....

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. 622 Figure 365 Menu 15.2: NAT Server Sets .....

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..... 623 Figure 366 Menu 15.2.x: NAT Server Sets ..

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..... 623 Figure 367 15.

2.x.x: NAT Server Configuration .....

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..... 624 Figure 368 Menu 15.2.1: NAT Server Setup ..

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..... 625 Figure 369 Server Behind NAT Example .....

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..... 625 Figure 370 NAT Example 1 .

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... 626 Figure 371 Menu 4: Internet Access & NAT Example .....

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..... 626 Figure 372 NAT Example 2 ...

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. 627 Figure 373 Menu 15.



[You're reading an excerpt. Click here to read official ZYXEL ZYWALL 5 user guide](http://yourpdfguides.com/dref/2434430)  
<http://yourpdfguides.com/dref/2434430>

2.1: Specifying an Inside Server .....

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.. 627 Figure 374 NAT Example 3 ...

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. 628 Figure 375 Example 3: Menu 11.1.2 ..

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.... 629 Figure 376 Example 3: Menu 15.1.1.1 ...

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.... 629 Figure 377 Example 3: Final Menu 15.1.1 ....

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... 632 Figure 382 Menu 15.3.  
1: Trigger Port Setup .....

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... 633 ZyWALL 5/35/70 Series User's Guide 39 List of Figures Figure 383 Menu 21: Filter and Firewall Setup ..

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... 635 Figure 384 Menu 21.2: Firewall Setup .

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.. 636 Figure 385 Outgoing Packet Filtering Process .....

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.. 637 Figure 386 Filter Rule Process ...

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..... 644 Figure 391 Menu 21.  
1.1.1: Generic Filter Rule ...

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..... 645 Figure 392 Telnet Filter Example ...

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.. 646 Figure 393 Example Filter: Menu 21.1.3.1 .....

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..... 647 Figure 394 Example Filter Rules Summary: Menu 21.1.3 ..

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*653 Figure 400 Menu 24: System Maintenance .....*

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*655 Figure 401 Menu 24.1: System Maintenance: Status ....*

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*656 Figure 402 Menu 24.2: System Information and Console Port Speed .....*

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*657 Figure 403 Menu 24.2.1: System Maintenance: Information .....*

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*.... 658 Figure 404 Menu 24.2.2: System Maintenance: Change Console Port Speed ....*

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.. 659 Figure 405 Menu 24.3: System Maintenance: Log and Trace .....

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..... 659 Figure 406 Examples of Error and Information Messages .....

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.. 660 Figure 407 Menu 24.3.2: System Maintenance: Syslog Logging .....

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. 660 Figure 408 Call-Triggering Packet Example .....

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664 Figure 409 Menu 24.4: System Maintenance: Diagnostic (ZyWALL 5) .....

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..... 665 Figure 410 WAN & LAN DHCP .....

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.. 665 Figure 411 Telnet into Menu 24.5 ..

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... 669 Figure 412 FTP Session Example .....

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.. 669 Figure 413 System Maintenance: Backup Configuration ...

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..... 672 Figure 414 System Maintenance: Starting Xmodem Download Screen ....

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... 672 Figure 415 Backup Configuration Example ..

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... 672 Figure 416 Successful Backup Confirmation Screen ..

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..... 672 Figure 417 Telnet into Menu 24.6 .

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.... 673 Figure 418 Restore Using FTP Session Example .

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.... 674 Figure 419 System Maintenance: Restore Configuration .....

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... 674 Figure 420 System Maintenance: Starting Xmodem Download Screen ..

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674 Figure 421 Restore Configuration Example .....

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..... 674 Figure 422 Successful Restoration Confirmation Screen .

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..... 675 Figure 423 Telnet Into Menu 24.7.  
1: Upload System Firmware .....

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..... 676 Figure 424 Telnet Into Menu 24.  
7.2: System Maintenance .....

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. 676 Figure 425 FTP Session Example of Firmware File Upload .....

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. 677 40 ZyWALL 5/35/70 Series User's Guide List of Figures Figure 426 Menu 24.7.1 As Seen Using the Console Port .....

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679 Figure 427 Example Xmodem Upload .....

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..... 679 Figure 428 Menu 24.7.  
2 As Seen Using the Console Port .....

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. 680 Figure 429 Example Xmodem Upload ....

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.... 680 Figure 430 Command Mode in Menu 24 .....

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..... 681 Figure 431 Valid Commands ..

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*682 Figure 432 Call Control .....*

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*. 683 Figure 433 Budget Management .....*

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*..... 684 Figure 434 Call History ...*

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..... 685 Figure 435 Menu 24: System Maintenance ..

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..... 686 Figure 436 Menu 24.10 System Maintenance: Time and Date Setting .

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..... 686 Figure 437 Menu 24.11 Remote Management Control ..

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..... 690 Figure 438 Menu 25: Sample IP Routing Policy Summary ...

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... 693 Figure 439 Menu 25.1: IP Routing Policy Setup .

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..... 695 Figure 440 Menu 25.1.1: IP Routing Policy Setup .

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..... 697 Figure 441 Example of IP Policy Routing .

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.. 698 Figure 442 IP Routing Policy Example 1 .....

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..... 698 Figure 443 IP Routing Policy Example 2 ....

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699 Figure 444 Schedule Setup .....

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.... 701 Figure 445 Schedule Set Setup .....

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.. 702 Figure 446 Applying Schedule Set(s) to a Remote Node (PPPoE) .....

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. 703 Figure 447 Applying Schedule Set(s) to a Remote Node (PPTP) ....

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.. 704 Figure 448 WLAN Card Installation ...

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.... 718 Figure 449 Console/Dial Backup Port Pin Layout .....

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.... 719 Figure 450 Attaching Rubber Feet .

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..... 722 Figure 451 Attaching Mounting Brackets and Screws .....

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..... 723 Figure 452 Rack Mounting .

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.... 723 Figure 453 Pop-up Blocker .....

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..... 725 *Figure 454 Internet Options* .

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.. 726 *Figure 455 Internet Options* .....

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. 727 *Figure 456 Pop-up Blocker Settings* ....

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..... 727 Figure 457 Internet Options ...

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. 728 Figure 458 Security Settings - Java Scripting .....

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... 729 Figure 459 Security Settings - Java ..

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729 Figure 460 Java (Sun) .....

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.. 730 Figure 461 Windows 95/98/Me: Network: Configuration .....

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.. 734 Figure 462 Windows 95/98/Me: TCP/IP Properties: IP Address ...

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735 Figure 463 Windows 95/98/Me: TCP/IP Properties: DNS Configuration .....

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..... 736 Figure 464 Windows XP: Start Menu ....

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..... 737 Figure 465 Windows XP: Control Panel ....

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..... 742 *Figure 473 Macintosh OS X: Apple Menu .*

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. 743 *Figure 474 Macintosh OS X: Network ....*

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.... 744 *Figure 475 Red Hat 9.  
0: KDE: Network Configuration: Devices .....*

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.. 745 *Figure 476 Red Hat 9.0: KDE: Ethernet Device: General ..*

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. 747 Figure 477 Red Hat 9.0: KDE: Network Configuration: DNS ...

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746 Figure 478 Red Hat 9.0: KDE: Network Configuration: Activate Figure 479 Red Hat 9.0: Dynamic IP Address Setting in ifconfig-eth0 ...

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.... 747 Figure 480 Red Hat 9.0: Static IP Address Setting in ifconfig-eth0 Figure 481 Red Hat 9.0: DNS Settings in resolv.conf Figure 482 Red Hat 9.0: Restart Ethernet Card Figure 483 Red Hat 9.0: Checking TCP/IP Properties .

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... 747 Figure 484 Peer-to-Peer Communication in an Ad-hoc Network .....

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761 Figure 485 Basic Service Set .....

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. 762 Figure 486 Infrastructure WLAN ....

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..... 763 Figure 487 RTS/CTS ..

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. 764 *Figure 488 WPA(2) with RADIUS Application Example .....*

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.. 771 *Figure 489 WPA(2)-PSK Authentication ...*

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.. 772 *Figure 490 Windows 98 SE: WinPopup ...*

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775 *Figure 491 Windows 98 SE: Program Task Bar .....*

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. 776 *Figure 492 Windows 98 SE: Task Bar Properties ....*

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..... 778 Figure 493 Windows 98 SE: StartUp ....

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.... 777 Figure 494 Windows 98 SE: Startup: Create Shortcut Figure 496 Windows 98 SE: Startup: Shortcut Figure 495 Windows 98 SE: Startup: Select a Title for the Program .....

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..... 778 Figure 497 VPN Rules ...

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..... 780 Figure 498 Headquarters Gateway Policy Edit .

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.... 781 Figure 499 Branch Office Gateway Policy Edit .....

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783 Figure 501 Branch Office VPN Rule .....

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..... 784 Figure 503 Branch Office Network Policy Edit ...

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... 785 Figure 504 VPN Rule Configured .....

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... 786 Figure 505 VPN Dial ..

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... 786 Figure 506 VPN Tunnel Established .....

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792 Figure 511 Certificate General Information before Import .....

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793 Figure 513 Certificate Import Wizard 2 .



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..... 793 Figure 514 Certificate Import Wizard 3 ...

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..... 794 Figure 515 Root Certificate Store .

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..... 795 Figure 517 ZyWALL Trusted CA Screen .....

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..... 797 Figure 519 Personal Certificate Import Wizard 1 ....

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798 Figure 521 Personal Certificate Import Wizard 3 .....

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.. 798 Figure 522 Personal Certificate Import Wizard 4 .....

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. 799 Figure 524 Personal Certificate Import Wizard 6 ....

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... 804 Figure 531 Backup Gateway .....

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..... 806 Figure 533 Managing the Bandwidth of an IKE SA .

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..... 806 Figure 534 Routing Command Example ...

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70 Table 6 Bridge and Router Mode Features Comparison .....

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. 73 Table 7 Screens Summary .....

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80 Table 10 HOME > DHCP Table .....

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..... 96 Table 19 VPN Wizard: IKE Tunnel Setting .

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