

[Continue](#)

How to Install a NETGEAR Wireless N-Router with Smart Wizard How to Change your Network Name and Password How to Troubleshoot your NETGEAR Wireless Network Push 'N' Connect The NETGEAR Difference WNR2000 Live Parental Controls Push 'N' Connect Advanced Quality of Service Energy Saving Features Wireless Repeater Mode / 24
7 F E C H N 1 A L S U P O R T 1-888-NETGEAR (638-4327) Email: info@NETGEAR.com Wireless-N 300 Router WNR2000v2 Secure, high-speed Internet connection • NETGEAR Live Parental Controls keeps your internet experience safe by blocking inappropriate Internet content • Broadband Usage Meter provides internet traffic monitor and usage alerts • Push 'N' Connect securely connects devices at the touch of a button • Automatic Quality of Service (QoS) for reliable Internet, video, voice, and gaming features • Live Parental Controls, powered by OpenDNS™ – Blocks unsafe Internet content and applications – Customizes settings through Web browser, accessible remotely – Protects connected devices through the router such as PCs, gaming consoles, and iPod touch @ – And it's FREE! See CD inside for installation – To learn more visit www.netgear.com/opennds • Smart Wizard installed CD and multi-language support make setup easy @ • Push 'N' Connect using Wi-Fi Protected Setup™ (WPS) allows you to add computers to the network quickly and securely • Configurable as a wireless repeater to extend range NETGEAR Green • Convenient power on/off switch to conserve energy. • Packaging manufactured with at least 80% recycled materials 1 N 300 Data Sheet 2.4 GHz 300 + 150 54 300 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual NETGEAR, Inc. 350 East Plumeria Drive San Jose, CA 95134 USA 202-10485-01 January 2010 v1.0... In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products described in this document without notice. NETGEAR does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein. Page 3 Hereby, [NETGEAR Inc.], declares that this [WNR2000] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. Español Por medio de la presente [NETGEAR Inc.] declara que el [WNR2000] cumple con los [Spanish] requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE. Page 4 Português [NETGEAR Inc.] declara que este [WNR2000] está conforme com os requisitos [Portuguese] essenciais e outras disposições da Directiva 1999/5/CE. [NETGEAR Inc.] dajeta da [WNR2000] v skladu z bistvenimi zahtevami in Slovensko ostalimi relevantnimi določili direktive 1999/5/ES. [Slovenian] [NETGEAR Inc.] týmto vyhlasuje, e [WNR2000] spĺňa zariadenie... Page 5 We NETGEAR, Inc., 4500 Great America Parkway, Santa Clara, CA 95054, declare under our sole responsibility that the model WNR2000v2 Wireless-N 300 Router Model WNR2000v2 complies with Part 15 of FCC Rules. Operation is subject to the following two conditions... Page 6 Consult the dealer or an experienced radio/TV technician for help. Wireless-N 300 Router Model WNR2000v2 Tested to Comply with FCC Standards FOR HOME OR OFFICE USE Modifications made to the product, unless expressly approved by NETGEAR, Inc., could void the user's right to operate the equipment. v1.0, January 2010... Page 7 Product and Publication Details Model Number: WNR2000v2 Publication Date: January 2010 Product Family: Wireless Router Product Name: Wireless-N 300 Router Model WNR2000v2 Home or Business Product: Home Language: English Publication Part Number: 202-10485-01 v1.0, January 2010... Contents About This Manual Conventions, Formats, and Scope xi Revision History xii Chapter 1 Configuring Basic Connectivity Using the Setup Manual 1-1 Logging In To Your Wireless Router 1-2 Selecting a Language for Your Screen Display 1-5 Configuring Your Internet Connection Using the Smart Setup Wizard 1-6 Viewing and Configuring Basic ISP Settings 1-7 Setting Up and Testing Basic Wireless Connectivity 1-11 Chapter 2... Page 9 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Understanding Your Firewall 2-23 Adding Guest Networks 2-23 Chapter 3 Restricting Access From Your Network Content Filtering Overview 3-1 Blocking Access to Internet Sites 3-1 Blocking Access to Internet Services 3-3 Blocking Services by IP Address Range 3-5 Scheduling Blocking 3-5... Page 10 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Chapter 5 Fine-Tuning Your Network Allowing Inbound Connections to Your Network 5-1 How Your Computer Accesses a Remote Computer through Your Router 5-2 How Port Triggering Changes the Communication Process 5-3 How Port Forwarding Changes the Communication Process 5-5 How Port Forwarding Differs from Port Triggering 5-6... Page 11 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Chapter 7 Troubleshooting Quick Tips 7-1 Troubleshooting Basic Functions 7-2 Login Problems 7-5 Checking the Internet Service Connection 7-6 Obtaining an Internet IP Address 7-6 Troubleshooting PPPoE 7-7 Troubleshooting Internet Browsing 7-8 Troubleshooting Your Network Using the Ping Utility 7-9... The user manual provides information for configuring the features of the NETGEAR @ Wireless-N 300 Router Model WNR2000v2 beyond initial configuration settings. Initial configuration instructions can be found in the NETGEAR Wireless Router Setup Manual. You should have basic to intermediate computer and Internet skills. Revision History NETGEAR, Inc. is constantly searching for ways to improve its products and documentation. The following table indicates any changes that might have been made since the WNR2000v2 router was introduced. Table 2-1. Publication Revision History... For first-time installation of your wireless router, refer to the NETGEAR Wireless Router Setup Manual. The Setup Manual explains how to launch the NETGEAR Smart Wizard on the Resource CD to step you through the procedure to connect your router, modem, and computers. The Smart Wizard will assist you in configuring your wireless settings and enabling wireless security for your network. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Logging In To Your Wireless Router When the wireless router is connected to your network, you can access and configure the router using your browser. To access the router: 1. Connect to the wireless router by typing in the address field of your browser, and then press Enter. Page 16 To automatically update to the new firmware, click Yes to allow the router to download and install the new firmware from NETGEAR. Warning: When uploading firmware to the WNR2000v2 router, do not interrupt the Web browser by closing the window, clicking a link, or loading a new page. Page 17 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 3. In the main menu on the left, select Basic Settings under Setup. The Basic Settings screen displays showing the wireless router's home page and suggested default settings. Figure 1-4 Note: If the Check For Updates button is selected, the home page is the Router Upgrade screen. The Router Upgrade screen displays information about the latest firmware version. If you do not click Later, the wireless router will wait for 5 minutes before automatically logging you out. Page 18 Language for Your Screen Display Using the Select Language drop-down menu, located in the upper right corner of the Router... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual The language is set to English by default. The default language is always stored in memory. When you select a language other than the default, that language as well as English is stored in memory. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Viewing and Configuring Basic ISP Settings Settings related to your Internet service are specified in the Basic Settings screen. Select Basic Settings under Setup in the main menu. The content you see in the Basic Settings screen depends on whether your ISP requires that you log in with a user name and password for Internet access. Page 21 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual – Account Name (might also be called Host Name). The account name is provided to the ISP during a DHCP request from your router. In most cases, this setting is not required, but some ISPs require it for access to ISP services such as mail or news servers. Page 22 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual If a login is required by your ISP, the following settings appear in the Basic Settings screen: ISP does require login Figure 1-7 • Does Your Internet Connection Require a Login? If you usually must use a login program such as WinPoET to access the Internet, your Internet connection requires a login. Page 23 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual • Telstra Bigpond, an Australian residential cable modem service Note: The Telstra Bigpond setting is only for older cable modem service accounts still requiring a Bigpond login utility. Telstra has discontinued this type of account. Those with Telstra DSL accounts and newer cable modem accounts should select No for Does Your Internet Connection Require a Login. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual – The list includes: • Always On. The router logs in to the Internet immediately after booting and never disconnects. • Dial on Demand. The router logs in only when outgoing traffic is present and logs out after the idle time-out. Page 25 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 1. Select Wireless Settings under Setup in the main menu of the WNR2000v2 router. Figure 1-10 2. For the wireless network name (SSID), use the default name, or choose a suitable descriptive name. In the Name (SSID) field, you can enter a value of up to 32 alphanumeric characters. Page 26 Apply. You must then change the wireless settings of your computer to match the router's new settings. Select Wireless Settings under Advanced in the main menu of the WNR2000v2 router. Figure 1-11 9. Make sure that the Enable Wireless Router Radio, Enable SSID Broadcast, and Enable WMM check boxes are selected. Page 27 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Once your computer has basic wireless connectivity to the router, you can configure the advanced wireless security functions of the computer and router (for more information about security and these settings, see Chapter 2, "Safeguarding Your Network"). Chapter 2 Safeguarding Your Network The Wireless-N 300 Router Model WNR2000v2 provides highly effective security features, which are covered in detail in this chapter. This chapter includes the following sections: • "Choosing Appropriate Wireless Security" • "Recording Basic Wireless Settings Setup Information" on page 2-5 ... Page 29 As a minimum, however, NETGEAR recommends using WEP with Shared Key authentication. Do not run an unsecured wireless network unless it is your intention to provide free Internet access for the public. Page 30 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual – Wireless Settings. You access these under Setup in the main menu (see "Viewing Basic Wireless Settings" on page 2-6). – Advanced Wireless Settings. You access these under Advanced in the main menu (see "Viewing Advanced Wireless Settings"... Page 31 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Table 2.2. Other Features That Enhance Security Security Type Description Disable the wireless router radio. If you disable the wireless router radio, wireless devices cannot communicate with the router at all. You might disable this when you are away or when other users of your network all use wired connections. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Recording Basic Wireless Settings Setup Information Before customizing your wireless settings, record the following information. If you are working with an existing wireless network, the person who set up or is responsible for the network can provide this information. WPA2-PSK and are configured with the correct passphrase. Use the procedures described in the following sections to specify the WNR2000v2 router. Store this information in a safe place. Changing Wireless Security Settings This section describes the wireless settings that you can view and configure in the Wireless Settings screen, which you access under Setup in the main menu. Page 34 2-12. • Region. This field identifies the region where the WNR2000v2 router can be used. It might not be legal to operate the wireless features of the wireless router in a region other than one of those identified in this field. Page 35 Up to 300 Mbps. Performance mode, using channel expansion to achieve the 300 Mbps data rate. The WNR2000v2 router will use the channel you selected as the primary channel and expand to the secondary channel (primary channel +4 or -4) to achieve a 40 MHz frame-by-frame bandwidth. Open System. With Open System authentication and 64 or 128 bit WEP data encryption, the WNR2000v2 router does perform data encryption but does not perform any authentication. Anyone can join the network. This setting provides very little practical wireless security. Automatic. In the Passphrase field, enter a word or group of printable characters, and click Generate. The passphrase is case-sensitive. For example, NETGEAR is not the same as nEtgear. The four key fields are automatically populated with key values. ... Page 38 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual WPA-Pre-Shared Key does perform authentication. WPA-PSK uses TKIP (Temporal Key Integrity Protocol) data encryption, and WPA2-PSK uses AES (Advanced Encryption Standard) data encryption. Both methods dynamically change the encryption keys making them nearly impossible to circumvent. Enable Wireless Router Radio. If you disable the wireless router radio, wireless devices cannot connect to the WNR2000v2 router. If you will not be using your wireless network for a period of time, you can clear this check box and disable all wireless connectivity. Note: If you choose to use WPS, the only security methods supported are WPA-PSK and WPA2-PSK. WEP security is not supported by WPS. The WNR2000v2 router provides two methods for connecting to a wireless client that supports WPS, described in the following sections... Add WPS Client screen. Using the Physical Push Button. Press the button on the WNR2000v2 router for over 5 seconds. For information about the WPS button light, see the NETGEAR Wireless Router Setup Manual. • The 2-minute window period expires for establishing a WPS connection. If the connection is not established, no WPS security settings will be specified in the WNR2000v2 router. Security PIN Entry There are two ways to enable a wireless client to join a network using a PIN: using the router's security PIN or using the wireless client's security PIN. Page 43 4. On the wireless client, obtain its security PIN, or follow its specific networking instructions to generate a client security PIN. 5. In the Add WPS Client screen of the WNR2000v2 router, enter the client security PIN in the Enter Client's PIN field. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Configuring the WPS Settings 1. Log in to the router as described in "Logging In To Your Wireless Router" on page 1-2. 2. Select Wireless Settings under Advanced in the main menu. Figure 2-10 These options are available under WPS Settings: •... WPS setup procedures to add clients that are not WPS enabled. To connect both non-WPS-enabled and WPS-enabled clients to the WNR2000v2 router: 1. Configure the settings of the WNR2000v2 router (shown in the Wireless Settings screen) for WPA-PSK or WPA2-PSK security, and record that information. See "Configuring WPA-PSK... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 4. For information about how to view a list of all devices connected to your router (including wireless and Ethernet connected), see "Viewing a List of Attached Devices" on page 6-7. Restricting Wireless Access by MAC Address... Page 47 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 3. Click Add to add a wireless device to the wireless access control list. The Wireless Card Access Setup screen opens and displays a list of currently active wireless cards and their Ethernet MAC addresses. 8. Click Apply to save your Wireless Card Access List settings. Now, only devices on this list can wirelessly connect to the WNR2000v2 router. Warning: MAC address filtering adds an obstacle against unauthorized access to your network by the general public. 3. Click Apply. Backing Up Your Configuration The configuration settings of the WNR2000v2 router are stored within the router in a configuration file. You can back up (save) this file and retrieve it later. NETGEAR recommends that you save your configuration file after you complete the main menu. The Schedule screen displays. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Be sure to select your time zone in the E-mail screen as described in "Setting the Time Zone" on page 3-9. 3. Click Apply to save your settings. Viewing Logs of Web Access or Attempted Web Access The log is a detailed record of the websites you have accessed or attempted to access. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Table 3-1. Log Entry Descriptions Field Description Target address The name or IP address of the website or newsgroup visited or to which access was attempted. Action Whether the access was blocked or allowed. Page 59 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Figure 3-6 2. To receive e-mail logs and alerts from the router, select the Turn E-mail Notification On check box. a. Enter the name of your ISP's outgoing (SMTP) mail server (such as mail.mylisp.com) in the Your Outgoing Mail Server field. Setting the Time Zone The WNR2000v2 router uses the Network Time Protocol (NTP) to obtain the current time and date from one of several network time servers on the Internet. Localize the time zone so that your log entries and other router functions include the correct time stamp. Chapter 4 Customizing Your Network Settings This chapter describes how to configure advanced networking features of the Wireless-N 300 Router Model WNR2000v2, including LAN, WAN, and routing settings. It contains the following sections: • "Using the LAN IP Setup Options"... The device name is a user-friendly name for the router. This name is shown in the Network on Windows Vista and the Network Explorer on all Windows systems. The Device Name field cannot be blank. The default name is WNR2000v2. Customizing Your Network Settings... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual configuring LAN TCP/IP Parameters These are advanced settings that you might configure if you are a network administrator and your network contains multiple routers. The router is shipped pre-configured to use private IP addresses on the LAN side and to act as a DHCP server (see "Using the Router as a DHCP Server"... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Using the Router as a DHCP Server By default, the router functions as a DHCP server, allowing it to assign IP, DNS server, and default gateway addresses to all computers connected to the router's LAN. The assigned default gateway address is the LAN address of the router. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Using Address Reservation When you specify a reserved IP address for a computer on the LAN, that computer always receives the same IP address each time it accesses the router's DHCP server. Reserved IP addresses should be assigned to computers or servers that require permanent IP settings. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Using a Dynamic DNS Service If your Internet Service Provider (ISP) gave you a permanently assigned IP address, you can register a domain name and have that name linked with your IP address by public Domain Name Servers (DNS). Page 67 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual To configure for a Dynamic DNS service: 1. Register for an account with one of the Dynamic DNS service providers whose names appear in the Service Provider list. For example, for DynDNS.org, select www.dynDNS.org. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Configuring the WAN Setup Options The WAN Setup options let you configure a DMZ (demilitarized zone) server, change the Maximum Transmit Unit (MTU) size, and enable the wireless router to respond to a ping on the WAN (Internet) port. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual them, but there are other applications that might not function well. In some cases, one local computer can run the application correctly if that computer's IP address is entered as the default DMZ server. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Configuring NAT Filtering Network Address Translation (NAT) determines how the router processes inbound traffic. Secured NAT provides a secured firewall to protect the computers on the LAN from attacks from the Internet, but might prevent some Internet games, point-to-point applications, or multimedia applications from functioning. Page 71 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual • The Gateway IP Address field specifies that all traffic for these addresses should be forwarded to the ISDN router at 192.168.1.100. • A Metric value of 1 will work since the SDN router is on the LAN. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 6. In the Destination IP Address field, enter the IP address of the final destination. 7. In the IP Subnet Mask field, enter the IP subnet mask for this destination. If the destination is a single host, enter 255.255.255.255. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual The wireless router allows you to control wireless client association: • Wireless Repeater. The wireless router sends all traffic from its local wireless or wired computers to a remote AP. To configure this mode, you must know the MAC address of the remote parent AP. Page 74 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 2. Log into the wireless router base unit, under the Advanced heading, select Wireless Repeating Function to display the Wireless Repeating Function screen. Figure 4-8 3. In the Wireless Repeating Function screen (depending on the frequency you want to use), select the Enable Wireless Repeating Function check box and the Wireless Base Station radio button. AP. Wireless Repeating (Also Called WDS) The WNR2000v2 router can be used with a wireless access point (AP) to build large bridged wireless networks. Wireless repeating is a type of Wireless Distribution System (WDS). Warning: If you use the wireless repeating function, your options for wireless security are limited to None or WEP. Page 76 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual The following figure shows a wireless repeating scenario: This wireless computer is this wireless computer is associated with AP 2, associated with AP 1. Internet AP 2 is in Repeater mode. Wireless Router WNR2000 (AP 1) is in Wireless Base Station mode. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Wireless Repeating Function You can view or change wireless repeater settings for the wireless router. From the main menu, under Advanced, click Wireless Repeating Function to display the Wireless Repeating Function screen. Figure 4-10. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Map of Reserved IP Addresses The WNR2000v2 router has a list of reserved IP addresses. Page 78 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual • The Priority Rules screen displays. Figure 5-3 2. Click Edit Service or Delete Service to make changes. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Configuring Port Triggering Port triggering is a dynamic extension of port forwarding that is useful in these cases: • More than one local computer needs port forwarding for the same application (but not simultaneously). Page 90 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 2. Select the Port Triggering radio button. The port triggering information displays. Figure 5-4 3. Clear the Disable Port Triggering check box. Note: If the Disable Port Triggering check box is selected after you configure port triggering, port triggering is disabled. Page 91 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 5. Click Add. The Port Triggering-Service screen displays. Figure 5-6 6. In the Service Name field, enter a descriptive service name. 7. In the Service User field, select Any (the default) to allow this service to be used by any computer on the Internet. Page 92 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 11. Click Apply. The service appears in the Port Triggering Portmap table. Figure 5-6 Fine-Tuning Your Network 5-13 v1.0, January 2010... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Using Universal Plug and Play (UPnP) helps you share files and printers between computers. To access the network and connect to other devices as needed, UPnP devices automatically discover the services from other registered UPnP devices on the network. Page 102 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual • Advertisement Period. The advertisement period is how often the router broadcasts its UPnP information. This value can range from 1 to 1440 minutes. The default period is 30 minutes. Shorter durations ensure that control points have current device status at the expense of additional network traffic. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual • Choose placement carefully. For best results, place your router – Near the center of the area in which your computers will operate. – In an elevated location such as a high shelf where the wireless connected computers have line-of-sight access (even if through walls). Page 96 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual The best MTU setting for NETGEAR equipment is often just the default value, and changing the value might fix one problem but cause another. Leave MTU unchanged unless one of these situations occurs: •... Quality of Service Quality of Service (QoS) is an advanced feature that can be used to prioritize some types of traffic ahead of others. The WNR2000v2 router can provide QoS prioritization over the wireless link and on the Internet connection. Page 98 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual From the main menu of the browser interface, under Advanced, select QoS Setup. The QoS Setup screen displays: Figure 5-8 WMM QoS is enabled by default. You can disable it by clearing the Enable WMM check box and clicking Apply. Page 99 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 2. Click Setup QoS rule. The QoS - Priority Rules screen displays. Figure 5-9 For convenience, the QoS Policy table lists many common applications and online games that can benefit from QoS handling. Page 100 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 3. Click Add Priority Rule. The QoS - Priority Rules screen displays. Figure 5-10 4. In the Priority Category list, select either Applications or Online Gaming. In either case, a list of predefined applications or games displays in the Applications drop-down list. Page 101 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 6. From the Priority drop-down list, select the priority that this traffic should receive relative to other applications and traffic when accessing the Internet. The options are Low, Normal, High, and Highest. 7. Click Apply to save this rule to the QoS Policy list and return to the QoS Setup screen. Page 102 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual QoS for a MAC Address To create a QoS policy for traffic from a specific MAC address: 1. From the main menu, under Advanced, select QoS Setup. The QoS Setup screen displays, as... Fiber to the Home (FTTH) will increase the connection speed to tens of Mbps. • Wireless. Your Wireless-N 300 Router Model WNR2000v2 provides a wireless data throughput of up to 300 Mbps using technology called multiple input, multiple output (MIMO), in which multiple antennas transmit multiple streams of data. Powerline. For connecting rooms or floors that are blocked by obstructions or are distant vertically, consider networking over your building's AC wiring. NETGEAR's Powerline HD family of products delivers up to 200 Mbps to any outlet, while the older-generation XE family of products delivers 14 Mbps or 85 Mbps. Page 105 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual • Backing up computers over the network has become popular due to the availability of inexpensive mass storage. Table 5-2 shows the time to transfer 1 gigabyte (1 GB) of data using various networking technologies. Chapter 6 Using Network Monitoring Tools This chapter describes how to use the maintenance features of your Wireless-N 300 Router Model WNR2000v2. This chapter includes the following sections: • "Viewing Wireless Router Status Information" • "Viewing a List of Attached Devices" on page 6-7 ... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Viewing Wireless Router Status Information To view router status and usage information: 1. Select Router Status under Maintenance in the main menu. The Router Status screen displays. Figure 6-1 Using Network Monitoring Tools... Page 108 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Table 6-1 describes the router status fields. Table 6-1. Wireless Router Status Fields Field Description Hardware Version The hardware version of the router. Firmware Version The version of the current software installed in the router. This will change if you update your router. Page 109 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual • The Gateway IP Address field (continued) Field Description Firewall Port. The following settings apply to the wireless port of the router. Name (SSID) The wireless network name (SSID) being used by the wireless port of the router. Page 110 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 2. Click Connection Status to display the connection status. Figure 6-2 Table 6-2 describes the connection status settings. Table 6-2. Connection Status Settings Item Description IP Address The IP address that is assigned to the router. Page 111 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 3. Click Show Statistics to display router usage statistics. Figure 6-3 Table 6-3 describes the router statistics. Table 6-3. Router Statistics Item Description System Up Time The time elapsed since the router was last restarted. Managing the Configuration File The configuration settings of the WNR2000v2 router are stored within the router in a configuration file. You can back up (save) this file to your computer, restore it, or reset it to the factory default settings. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Select Backup Settings under Maintenance in the main menu. The Backup Settings screen displays. Figure 6-5 The following sections describe the three available options. Backing Up and Restoring the Configuration The Restore and Backup options in the Settings Backup screen let you save and retrieve a file containing your router's configuration settings. 7-12). Updating the Router Firmware The firmware of the WNR2000v2 router is stored in flash memory, and can be updated as NETGEAR releases new firmware. You can update your firmware by logging into the router and using one of these procedures: •... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Checking for New Firmware in the Router Upgrade Screen To check for new firmware and allow the router to automatically install it: 1. Select Router Upgrade under Maintenance in the main menu. The Router Upgrade screen displays. 1. Log in to your router, select Router Status under Maintenance on the main menu, and make note of the firmware version of your router. Figure 6-9 2. Go to the WNR2000v2 support page on the NETGEAR website at... Using Network Monitoring Tools 6-11 v1.0, January 2010... Page 117 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 3. Compare the version number of the most recent firmware offered to the firmware version of your router. If the version on the NETGEAR website is more recent, download the file from the WNR2000v2 support page to your computer. Enabling Remote Management Access Using the Remote Management feature, you can allow a user on the Internet to configure, upgrade, and check the status of your WNR2000v2 router. Select Remote Management under Advanced in the main menu. The Remote Management screen displays. Page 119 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 2. Under Allow Remote Access By, specify what external IP addresses will be allowed to access the router's remote management. Note: For enhanced security, restrict access to as few external IP addresses as practical. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Traffic Meter Traffic Metering allows you to monitor the volume of Internet traffic passing through your router's Internet port. With the Traffic Meter utility, you can set limits for traffic volume, set a monthly limit, and get a live update of traffic usage. Page 121 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 1. On the Advanced menu, click Traffic Meter. Figure 6-11 2. To enable the Traffic Meter, click the Enable Traffic Meter check box. Using Network Monitoring Tools 6-16 v1.0, January 2010... Page 122 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 3. If you would like to record and restrict the volume of Internet traffic, click the Traffic volume control by radio button. You can select one of the following options for controlling the traffic volume: •... Troubleshooting This chapter provides information about troubleshooting your Wireless-N 300 Router Model WNR2000v2. After each problem description, instructions are provided to help you diagnose and solve the problem. As a first step, please review the Quick Tips. Tip: NETGEAR provides helpful articles, documentation, and the latest software updates at... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual 4. Turn on the wireless router and wait 1 minute. 5. Turn on the computers. Make sure that the Ethernet cables are securely plugged in. • The Internet status light on the wireless router is on if the Ethernet cable connecting the wireless router and the modem is plugged in securely and the modem and wireless router are turned on. Page 125 • Check that you are using the power adapter supplied by NETGEAR for this product. If the error persists, you have a hardware problem and should contact Technical Support. The Power light blinks green slowly and continuously. Page 126 • Make sure that power is turned on to the connected computer. 3. Be sure you are using Ethernet cable like the cable that was supplied with the wireless router. See the NETGEAR Wireless Router Setup Manual for instructions. The Push 'N' Connect (WPS) push-button blinks amber. • If you are using an Ethernet-connected computer, check the Ethernet connection between the computer and the router as described in the NETGEAR Wireless Router Setup Manual for instructions). NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Troubleshooting Internet Browsing If your wireless router can obtain an IP address but your computer is unable to load any web pages from the Internet, check the following: • Your computer might not recognize any DNS server addresses. A DNS server is a host on the Internet that translates Internet names (such as www.address) to numeric IP addresses. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual Testing the LAN Path to Your Router You can ping the router from your computer to verify that the LAN path to your router is set up correctly. To ping the router from a running Windows PC: 1. Select E-mail under Content Filtering in the main menu to display a screen that shows the current date and time of day. The WNR2000v2 router uses the Network Time Protocol (NTP) to obtain the current time from one of several network time servers on the Internet. Each entry in the log is stamped with the date and time of day. 2. Use the adapter's setup program to scan for available wireless networks, looking for the network name (SSID) of NETGEAR, or your custom SSID if you have changed it. 3. If your wireless network appears and has good signal strength, configure and test with the simplest wireless connection possible. NETGEAR Wireless-N 300 Router WNR2000v2 User Manual If your wireless network appears, but the signal strength is weak, check these conditions: • Is your router too far from your adapter, or too close? Place the computer that has the adapter near the router, but at least 6 feet away, and see whether the signal strength improves. Appendix A Technical Specifications Default Configuration Settings This appendix provides factory default settings and technical specifications for the Wireless-N 300 Router Model WNR2000v2. Table A-1. WNR2000v2 Router Default Configuration Settings (continued) Wireless Enabled Wireless Communication NETGEAR SSID Name Security Disabled All wireless stations allowed Wireless Access List (MAC Filtering) Broadcast SSID Enabled Transmission Speed Auto Country/Region United States (North America only)... NETGEAR Wireless-N 300 Router WNR2000v2 User Manual General Specifications Table A-2. WNR2000v2 Router General Specifications Feature General Network Protocol and Standards Compatibility Data and Routing Protocols TCP/IP, RIP-1, RIP-2, DHCP, PPPoE, PPTP, Bigpond, Dynamic DNS, and UPnP Power Adapter North America... Wireless Networking Basics Preparing Your Network Virtual Private Networking Basics Glossary In addition, you can find initial setup instructions for your wireless router in the NETGEAR Wireless Router Setup Manual. Related Documents v1.0, January 2010... Page 139 Index basic wireless connectivity 1-11 Big Pond 1-10 access blocking blocking access remote 6-13 inbound traffic restricting by MAC address 2-19 to a remote computer bold text to the router broadband Internet 5-24 viewing logs broadcast status access control turn off 1-13 turning on 2-21... Page 140 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual connection types encryption 5-24 content filtering encryption keys 2-10 CTS/RTS Threshold environmental specifications 2-13 custom service (port forwarding) erasing configuration customer support Ethernet MAC address data packets, fragmented factory default settings 5-16 listed... Page 141 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual interference, reducing logs 5-16 sending Internet connection timing stamping entries default settings viewing Internet port, status Internet Relay Chat (IRC) Internet services, blocking access MAC addresses interval, poll attached devices IP addresses current blocking access by... Page 142 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual path, testing reference documents 7-10 Performance mode region of operation performance, optimizing registering product 5-15 physical push button (WPS) releasing connection status 2-14 physical specifications remote devices, testing path 7-10 remote management 2-15, 2-17... Page 143 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual trusted user Setup Manual Shared Key authentication typographical conventions 2-5, 2-9 Smart Setup Wizard SMTP server software push button configuration (WPS) 2-14 Universal Plug and Play (UPnP) 5-14 specifications up time, system technical... Page 144 NETGEAR Wireless-N 300 Router WNR2000v2 User Manual wireless repeating function 4-12, 4-15, 4-17 wireless security, setting up wireless settings advanced 2-12 basic default, listed gathering information testing 1-11 WMM (Wi-Fi Multimedia) 5-18 WPA2-PSK encryption 2-3, 2-10 WPA-PSK + WPA2-PSK encryption...

