



OFFICECONNECT®

REMOTE DUAL ANALOG ROUTER

V2.2.0 RELEASE NOTES

These Release Notes describe the updates made to the OfficeConnect Remote Dual Analog router with software version V2.2.0. The Release Notes provide information related specifically to the V2.2.0 release, and they are designed to be used with the Configuration Notes that accompany this release. The Configuration Notes provide detailed information for configuring the OfficeConnect Remote Dual Analog router for each of four scenarios (uses). The Web page for the V2.2.0 release provides a link to the Configuration Notes.

The V2.2.0 Release Notes do not fully supersede the V2.0.1 Release Notes that are shipped with the router. Referring to the V2.0.1 Release Notes:

- 1 Items 1, 2, 5, 10, 11, 12, 13, 14, and 15 are still valid.
- 2 Item 3 is superseded by the description of the factory default configuration in the V2.2.0 Release Notes. It is still true that the router is shipped with the factory default configuration.
- 3 Items 4, 7, 8, and 9 are addressed by fixes or workarounds in the V2.2.0 Release Notes (see table 1, *Problem/Fix Descriptions*).
- 4 Item 6 resulted in a change to the Web configuration interface. There is no longer an *Alternate Phone Number* entry. This was replaced by *Phone #1* and *Phone #2* entries.

The following changes have been made, and are detailed in the V2.2.0 Release Notes:

- A modification that makes it easier to configure the router to its factory default configuration.
- Software bugs were fixed to enhance operation. Additionally, NM error messages that might be resolved with user interaction are listed with the recommended user action.
- Supplementary information has been provided to the regulatory statements contained in the *OfficeConnect Remote Dual Analog Router Install Guide* and *User Guide*.

Factory Default Configuration

The V2.2.0 release of the OfficeConnect Remote Dual Analog router includes a modification that makes it easier to configure the router to a factory default configuration. In previous versions of the router, the RESET button was used to select between two boot options.

With V2.2.0, what had been described as boot option 2 (which resulted in an “unconfigured” OfficeConnect Remote Dual Analog router), can no longer be selected when using the RESET button. Now, the RESET button is used only to revert to the factory default configuration. Additionally, you can revert to the factory default configuration using the router's Web configuration interface.

The factory default configuration is described in the next section, as are the methods used to initiate the factory default configuration.

What is the Factory Default Configuration?

The factory default configuration sets the following initial configuration parameters:

Parameter description	Default
Local LAN IP address	192.168.200.254
Local LAN network mask (netmask)	255.255.255.0
Dynamic Host Configuration Protocol (DHCP)	Enabled
IP addresses reserved for workstations on the LAN side	192.168.200.1 through 192.168.200.20 (20 addresses)
Domain Name Service (DNS)	Enabled
Default DNS server	192.168.200.254
Default gateway	192.168.200.254
DNS domain local host entry	3com-ocrda.com = 192.168.200.254

Resetting the Router

There are two ways to cause the OfficeConnect Remote Dual Analog router to revert to the factory default configuration:

- Using the RESET button
- Initiating a reset from the Web configuration interface.

These methods are described below.



As used with the OfficeConnect Remote Dual Analog router, the term reset means to cause the router to revert to the factory default configuration. You need to do this only when you want to eliminate an existing configuration that you are having problems with. Under normal operating conditions, when the router has already been configured, this is not necessary.

Using the RESET Button to Restore the Factory Default Configuration

To use the RESET button to restore the OfficeConnect Remote Dual Analog router to its factory default settings:

- 1 Disconnect the router from the power source.
- 2 Press in and hold the RESET button on the back of the router.

- 3 Reconnect the router to the power source; continue to hold in the RESET button for at least 5 seconds. The 1%, 5%, 15%, and 25% Utilization LEDs on the front panel of the router will cycle on and off.
- 4 Release the RESET button after 5 seconds. Verify that one of the LEDs listed above blinks briefly. This indicates that the router received the reset signal. It does not matter which LED blinks.

Using the Web Configuration Interface to Restore the Factory Default Configuration

To use the Web configuration interface to restore the OfficeConnect Remote Dual Analog Route to its factory default settings:

- 1 Launch your Web browser and access the OfficeConnect Remote Dual Analog router Web page (for the Web browser *Location* entry, type either the IP address of the router or *3com-ocrda.com*). The default IP address for the router is 192.168.200.254.
- 2 From the OfficeConnect Remote Dual Analog router main page, click the *Commands* link.
- 3 Click *Reboot*.
- 4 Click *Delete All Configuration and reboot with factory default configuration*.
- 5 Click the *Submit* button.



Clicking Submit sends the reset command to the OfficeConnect Remote Dual Analog router. You will not see a response during this process; in fact, you will eventually receive a time-out message from the Web browser. To avoid this, wait a few seconds after clicking the Submit button, then click your Web browser's Stop button.

What the Factory Default Configuration Does

The factory default configuration defines (sets) some initial OfficeConnect Remote Dual Analog router configuration parameters. By verifying or changing a few configuration settings on the workstation (PC) connected to the router, the factory default configuration allows the router to access the OfficeConnect Remote Dual Analog router Web configuration interface. The configuration interface is then used to configure all remaining OfficeConnect Remote Dual Analog router configuration parameters.

The workstation settings depend on whether you are setting up a new Local Area Network (LAN) or connecting the OfficeConnect Remote Dual Analog router to an existing (established) LAN. Instructions for setting up the workstation appear in the following subsections; refer to the appropriate subsection for your installation—new or existing LAN installation, and Windows 95 or Windows NT 4.0 configuration.

For a New LAN—Setting up Workstations for Dynamic IP Address Assignment

When configuring a new LAN, you will configure your workstation to allow the OfficeConnect Remote Dual Analog router to automatically assign the IP address and the DNS server address. This is called *dynamic IP assignment*. Configure the workstation as described in the following sections (refer to the appropriate section, either Windows 95 or Windows NT, depending on your workstation's operating system). These configuration parameters provide the information needed for the router to connect to the OfficeConnect Remote Dual Analog

router Web configuration interface. The Web configuration interface is used to configure all remaining parameters directly from the workstation.



These instructions assume that your workstations are connected to the OfficeConnect Remote Dual Analog router as described in the OfficeConnect Remote Dual Analog Router Install Guide and User Guide.

Windows 95 Users For each workstation connected to the router, follow these configuration steps:

- 1 From the desktop, click the *Start* button, then click *Settings*, and then *Control Panel*. Double-click *Network*.
- 2 From the list of installed network components, find your TCP/IP connection (the board that is installed for network connections will be listed). Click on the board, then select *Properties*.
- 3 On the *TCP/IP Properties* screen, click on the *Obtain an IP address automatically* radio button.
- 4 Click on the *DNS configuration* tab. Click on the *Disable DNS* radio button.
- 5 Launch your Web browser. Connect to the OfficeConnect Remote Dual Analog router Web page by entering in the Web browser *Location* either the IP address of the router or *3com-ocrda.com*. Complete the router's configuration using the Web configuration interface. For ease in configuring the router, refer to the *Configuration Notes* provided online with these V2.2.0 Release Notes during the configuration process.



When you access the OfficeConnect Remote Dual Analog router's Web configuration interface, configuration parameters that you entered earlier may be displayed. If this occurs, your Web browser is using a cached (previously accessed) version of the router's configuration. In this case, either click on your Web browser's Reload (or Refresh) button or flush the Web browser's cache buffer. Then enter the new configuration parameters.

Windows NT Users For each workstation connected to the router, follow these configuration steps:

- 1 From the desktop, click the *Start* button, then click *Settings*, and then *Control Panel*. Double-click *Network*.
- 2 Click the *Protocols* tab. Highlight your TCP/IP connection.
- 3 Click on *Properties*. Select your TCP/IP adapter from the pull-down list.
- 4 Click *Obtain an IP address from a DHCP server*.
- 5 Click the *DNS* tab. Click the *Add* button within the DNS Service Search Order text box. When the TCP/IP DNS Server dialog box is displayed, enter the IP address of the OfficeConnect Remote Dual Analog router (*192.168.200.254*). Click *Add* to accept this entry.

Repeat this step for the first and second DNS entries obtained from your ISP.

Click *OK* to exit the screen.

- 6 Launch your Web browser. Connect to the OfficeConnect Remote Dual Analog router Web page by entering in the Web browser *Location* either the IP address of the router or *3com-ocrda.com*. Complete the router's configuration using the

Web configuration interface. For ease in configuring the router, refer to the *Configuration Notes* provided online with these V2.2.0 Release Notes during the configuration process.



When you access the OfficeConnect Remote Dual Analog router's Web configuration interface, configuration parameters that you entered earlier may be displayed. If this occurs, your Web browser is using a cached (previously accessed) version of the router's configuration. In this case, either click on your Web browser's Reload (or Refresh) button or flush the Web browser's cache buffer. Then enter the new configuration parameters.

For an Existing LAN—Setting up Workstations for Static IP Address Assignment

When you add an OfficeConnect Remote Dual Analog router to an existing LAN, addresses assigned to the router and to any attached workstations must take into consideration the addressing scheme that has been used for the LAN. In this case, you do not want the OfficeConnect Remote Dual Analog router to automatically assign the IP addresses. Instead, you must obtain the addresses from your Information Systems administrator and assign them manually. Assigning specific addresses in this way is called *static IP address assignment*.

Before beginning the setup instructions, obtain from your Information Systems administrator:

- The IP address of your workstation—it should be an IP address that is outside of the DHCP pool, but which is within the same network mask.
- The network mask to use—it should be the same as that of the rest of the workstations connected to the OfficeConnect Remote Dual Analog router.
- The default gateway address—it should be the address of the OfficeConnect Remote Dual Analog router.
- DNS IP addresses—one of the addresses should be the IP address of the OfficeConnect Remote Dual Analog router.

Configure the workstation as described in the following sections (refer to the appropriate section, either Windows 95 or Windows NT, depending on your workstation's operating system). These configuration parameters provide the information necessary for the router to connect to the OfficeConnect Remote Dual Analog router Web home page. The Web page contains the configuration interface for configuring all remaining parameters directly from the workstation.



These instructions assume that your workstations are connected to the OfficeConnect Remote Dual Analog router as described in the OfficeConnect Remote Dual Analog Router Install Guide and User Guide.

Windows 95 Users For each workstation connected to the router, follow these configuration steps:

- 1 From the desktop, click the *Start* button, then click *Settings*, and then *Control Panel*. Double-click *Network*.
- 2 From the list of installed network components, find your TCP/IP connection (the board that is installed for network connections will be listed). Click on the board, then select *Properties*.

- 3 On the *TCP/IP Properties* screen, click on the *Specify an IP address* button, then enter the IP address and Subnet Mask you obtained from your Information Systems administrator.
- 4 Click on the *DNS configuration* tab. Click on the *Enable DNS* radio button. Enter in the DNS Server Search Order box a DNS address obtained from your Information Systems administrator. Click the *Add* button. Repeat this step if you are adding additional DNS servers (as determined by your Information Systems administrator).
- 5 Click on the *Gateway* tab. Enter in the New gateway box the gateway address you obtained from your Information Systems administrator. Click the *Add* button.
- 6 Click *OK* at the bottom of the TCP/IP Properties screen, then close the Network and Control Panel screens.
- 7 Launch your Web browser. Connect to the OfficeConnect Remote Dual Analog router Web page by entering in the Web browser *Location* either the IP address of the router or *3com-ocrda.com*. Complete the router's configuration using the Web configuration interface. For ease in configuring the router, refer to the *Configuration Notes* provided online with these V2.2.0 Release Notes during the configuration process.



When you access the OfficeConnect Remote Dual Analog router's Web configuration interface, configuration parameters that you entered earlier may be displayed. If this occurs, your Web browser is using a cached (previously accessed) version of the router's configuration. In this case, either click on your Web browser's Reload (or Refresh) button or flush the Web browser's cache buffer. Then enter the new configuration parameters.

Windows NT Users For each workstation connected to the router, follow these configuration steps:

- 1 From the desktop, click the *Start* button, then click *Settings*, and then *Control Panel*. Double-click *Network*.
- 2 Click the *Protocols* tab. Highlight your TCP/IP connection.
- 3 Click on *Properties*. When the IP Address tab is displayed, select your TCP/IP adapter from the pull-down list.
- 4 Click on the *Specify an IP address from a DHCP server* radio button, then enter the IP address and Subnet Mask that you obtained for this workstation from your Information Systems administrator.
- 5 Enter the IP address of the OfficeConnect Remote Dual Analog in the Default Gateway box.
- 6 Click on the DNS tab, then click the *Add* button within the DNS Service Search Order text box. When the TCP/IP DNS Server dialog box is displayed, enter the IP address of the OfficeConnect Remote Dual Analog router (*192.168.200.254*). Click *Add* to accept this entry.

Repeat this step for the first and second DNS entries obtained from your Information Systems administrator.

Click *OK* to exit the screen.
- 7 Check the *Enable DNS for Windows Resolution* box. Click *OK* to exit, then click *OK* again to exit the Network screen.

- 8 Launch your Web browser. Connect to the OfficeConnect Remote Dual Analog router Web page by entering in the Web browser *Location* either the IP address of the router or *3com-ocrda.com*. Complete the router's configuration using the Web configuration interface. For ease in configuring the router, refer to the *Configuration Notes* provided online with these V2.2.0 Release Notes during the configuration process.




When you access the OfficeConnect Remote Dual Analog router's Web configuration interface, configuration parameters that you entered earlier may be displayed. If this occurs, your Web browser is using a cached (previously accessed) version of the router's configuration. In this case, either click on your Web browser's Reload (or Refresh) button or flush the Web browser's cache buffer. Then enter the new configuration parameters.

Problem Fixes in V2.2.0

The following tables lists problems that have either been fixed or for which a workaround has been developed.

Table 1 Problem/Fix Descriptions.

Problem	Fix or Workaround
Unstable conditions can occur when the router is used for bridging.	Fix: V2.2.0 does not support bridging.
There is no method of updating modem code.	Fix: V2.2.0 incorporates a modem update function. From the router's Web configuration home page, click <i>Commands</i> . On the commands page there is now a modem software update and a router software update button.
Hardware boot options do not appear on the Web configuration screens.	Fix: From the router's Web configuration home page, click <i>Commands</i> . The <i>Reboot</i> button has been added.
Some modem options listed in the Web configuration screens don't work.	Fix: From the router's Web configuration home page, click the <i>Advanced Configuration</i> radio button, then click <i>Global/Modem</i> ; all displayed modem options work properly.
Modem configurations aren't displayed in the Web configuration screens.	Fix: From the router's Web configuration home page, click the <i>Monitor</i> radio button, then <i>Version</i> Info. Router and modem version levels are displayed.
The password and username fields are too small.	Fix: The password and username fields have been increased to 32 characters.
Variations of the product name were supported for contacting the Web page.	Fix: Only <i>3com-ocrda.com</i> is supported.
When using MLPPP, if channel 1 reached 100% utilization, channel 2 was not added; MLPPP crashed.	Fix: Channel 2 is added when channel 1 reaches 100% utilization.
Network management error messages received when using the Web configuration interface are not helpful.	Fix: When using the <i>Advanced Configuration</i> path, network management error messages have been revised to be more description/explanatory.  Following this table is a listing of the revised NM error messages.
The <i>Advanced Configuration</i> page for configuring remote sites lists two phone numbers, a primary and an alternate; however these numbers do not alternate in usage.	Fix: The Phone Number screen under the <i>Advanced Configuration</i> path has been changed so that the terms primary and alternate are no longer used. The terms Phone Number 1 and Phone Number 2 are used instead, and Phone Number 2 refers to an optional, second number used for bringing up the second channel in a multilink call, or used for single-line connections in cases where a connection through the first number has been unsuccessful. To access the Phone Numbers screen, from the router's Web configuration home page, click the <i>Advanced Configuration</i> radio button, and then click <i>Remote Sites (WAN)</i> . Advance to the Phone Number screen. Instead of being prompted to enter a phone number and an alternate phone number, the user is now prompted for Phone Number 1 and Phone Number 2.
Clicking <i>Help</i> within the Web configuration interface results in an error message.	Fix: In order to use this <i>Help</i> button, you must have installed the additional help files from the CD-ROM that shipped with your router onto your hard drive. When the <i>Help</i> button is pressed, the user interface looks for these additional help files in a pre-specified location on your hard drive. Instructions for installing the files can be found on pages 3-4 of the <i>OfficeConnect Remote Dual Analog Router Install Guide</i> . In addition to installing the help files onto your hard drive, the same installation procedure automatically adds useful quick references to the <i>Start/Programs/OfficeConnect Remote Dual Analog</i> button on your Windows desktop.
Defining a new profile causes a previously working profile to stop working.	The router is designed to allow only one active profile at any given time, and the last profile added through the Setup Wizard automatically becomes the active profile. Whenever a new profile is added, the previously active profile becomes inactive. The user can manually make any profile active again by following this path from the Setup Wizard: <i>To Modify or Delete the following selected Remote Access account/Next/Next/Use Remote As Default Gateway</i> . The router will enable the selected profile and automatically deactivate the previously active profile.

Problem	Fix or Workaround
<p>The router does not support CBCP within PPP for dial-out users. If set to continuous or on-demand, the router continuously attempts to dial-out when the remote peer has already hung up and attempts to call back user. If only one line is available, this causes a problem.</p> <p>The router does not support full CBCP. It does, however, support limited features of the callback service. The user may arrange with his corporate network administrator to call back at a particular phone number when he calls for RAS service (the corporation may require this for security, financial, or administrative reasons). The corporate RAS server is usually a more powerful router than an OfficeConnect Remote Dual Analog router that supports callback features.</p>	<p>To configure the OfficeConnect Remote Dual Analog router for a callback service, from the router's Web configuration home page, click on the <i>Advanced Configuration</i> radio button, then click <i>Remote Site (WAN)</i>. Then click on <i>Add</i> or <i>Modify</i> a user account, and then select <i>Callback</i> as the <i>User Type</i>. Subsequently, click the <i>Commands</i> radio button, then click <i>Dial</i> to dial into the corporate network. The corporate network will obtain the user account information, hang up the phone, and call back at the prearranged phone number. In most cases, the prearranged phone number is the same phone number that makes the initial call. When the connection is lost, the router waits for the corporate network to call back. When the corporate network finally calls back, the router answers the phone and establishes a PPP connection.</p>
<p>When a profile is configured with <i>Continuous</i> as the dial-type, calls may be disconnected after a period of time or may not be routed at all.</p>	<p>Workaround: Modify the profile using the Setup Wizard, so that the dial-type is either <i>On Demand</i> or <i>Manual</i>. To modify the profile, under the Setup Wizard select <i>To Modify or Delete the following selected Remote Access account</i>.</p>
<p>Errors may result when setting certain fields on a site that is enabled and/or active. For example, an error occurs if the user tries to modify information on the IP Modify page for a site that is already enabled.</p>	<p>Workaround: Disable the site before trying to set the new parameters. For example, click the <i>Advanced Configuration</i> radio button, then click <i>Remote Site (WAN)</i>. Select the site name, then click the <i>General</i> button. On the General Modify screen uncheck the <i>Enable Site</i> box and click the <i>Modify</i> button. Make the desired changes, then click <i>Modify</i> again. Go back and reenable the site after making the changes; click <i>Modify</i> again after making the changes, then click <i>Save Configuration</i> from the web page sidebar.</p>
<p>There is a problem with PPP compression.</p>	<p>Workaround: Rather than modifying PPP compression information, use the modem compression functions. Modem compression is the default.</p>
<p>Can't change IPX frame types once entered.</p>	<p>Workaround: Delete account and reenter the configuration information.</p>
<p>DHCP and IP address selection problems when using Setup Wizard. Changing the router's network IP address through <i>Advanced Configuration/Local Site (LAN)</i> does not work properly. The router has a new network number, but the IP pool of the DHCP function still retains the old network. DHCP then fails.</p>	<p>Workaround: Change the Local Site (LAN) IP address globally by clicking the <i>Advanced Configuration</i> radio button, then clicking <i>Global Protocols/DHCP/Configure DHCP Server</i>. Type the new gateway address, IP pool addresses, and DNS server, then click <i>Submit</i>.</p> <p>Click on the <i>Advanced Configuration</i> radio button, then click <i>Local Site (LAN)/IP</i>. Click the <i>Modify/Delete</i> button and type the new LAN Address (gateway address) and LAN Mask, then click the <i>Modify</i> button to save the new settings.</p>
<p>Because of a known problem, certain LAN subnet masks are not accepted by the user interface (for example, when the user selects the following path: <i>Advanced Configuration/Local Sites (LAN)/IP/Modify/Delete/LAN Mask</i>). In these cases, the router calculates the minimal IP mask incorrectly.</p>	<p>Workaround: Manually change the IP netmask to 255.255.255.0.</p>
<p>When changing RIP, RIP version, and Address Translation fields, an error may result if NAT/PAT and RIP are configured.</p>	<p>Workaround: Always set RIP to <i>None</i> or <i>Listen</i> if either NAT or PAT is enabled.</p>
<p>A problem occurs if a user enters an incorrect phone number on the Login page and also chooses "Always use 2 lines" or "Use 1 or 2 lines based on line utilization" on the PPP page when configuring the router for <i>Internet Access</i> or for <i>Telecommuting or Remote Office Access</i> using the Setup Wizard. If the user saves the configuration with the incorrect phone number and then later attempts to correct this error through the Setup Wizard, using the <i>To Modify or Delete the following selected Remote Access account</i> radio button, the router will no longer dial when a call is launched.</p>	<p>Workaround: Power-cycle the OfficeConnect Remote Dual Analog router by unplugging and then re-plugging in the power supply at the back of the router.</p>

Problem	Fix or Workaround
<p>If the Advanced Configuration option is used to add a new profile, an incorrect reading can occur in the Connection Status page of the user interface.</p> <p>Specifically, if an incorrect number has been entered for Phone Number 1 and a correct number for Phone Number 2, a call initiated to the new destination will be established using Phone Number 2, but the Connection Status page will incorrectly show the connection occurring over Phone Number 1.</p>	<p>Workaround: The problem will not occur if the Setup Wizard is used to add the new profile.</p>

Network Management Error Descriptions

Network Management Errors that you may be able to resolve are listed in the table below. The error as it appeared in previous versions of software is listed, along with a corresponding listing of the new (V2.2.0) error message, detailed description of the problem, and suggested action for you to take if the error occurs.

If you receive an NM error that is not listed in this table (or you are unable to resolve an error that is listed), copy the text of the error message, and add as much information as possible describing what led up to the error. Call 3Com Technical Support at **1-800-NET-3COM** to report the problem.

Table 2 NM Error Messages

Old NM Error Message	New Error Message	Problem Description	Recommended Action
NM_NOT_ENOUGH_ROOM	There is not enough room	There is not enough memory in the system to process this request. This is usually caused by either heavy memory usage by some process, or memory that is not released after being used.	Close down some system processes (tasks). If the problem continues, delete entries in some system tables, such as user account, routing table entries, or DNS entries. If the problem persists, reboot the system.
NM_NOT_MODIFIED	No value returned because it has not been modified	For some configuration parameters, if the existing entry is not modified, the system might not create an entry in the database. An attempt to read that parameter is returned as a meaningless value.	Verify that you have entered/modified all required configuration parameters (refer to the configuration notes accompanying this release for step-by-step configuration instructions).
NM_INVALID_OPERATION	Operation is invalid because the site is in use or operation not allowed	An attempt was made to change a configuration while a process was running.	Stop or disable the process first. Make the needed change, then start the process again.
NM_DUPLICATE_ADD	Object with same name has already existed, and cannot be added	An attempt was made to add a new entry (such as username or IP address) that is identical to an existing entry.	Delete the existing entry, then add the new one. Alternately, use the <i>Modify</i> function instead of the <i>Add</i> function.
NM_NO_PROCESSING	Request is not processed because of memory allocation problem	There is not enough memory in the system to process this request. This is usually caused by either heavy memory usage by some process, or memory that is not released after being used.	Close down some system processes (tasks). If the problem continues, delete entries in some system tables, such as user account, routing table entries, or DNS entries. If the problem persists, reboot the system.

Old NM Error Message	New Error Message	Problem Description	Recommended Action
NM_NO_SUCH_INSTANCE	Object instance id is not valid	An attempt was made to access a configuration parameter, but the <i>instance ID</i> (entry) is not valid. For example, a username with invalid characters, or an IP address this is not complete or is out of range.	Check your input and try again.
NM_END_OF_MIB	No next object returned because of end of MIB	An attempt was made to access a configuration parameter that is not in the system database. The system searches past the end of the MIB database, but still cannot find the entry.	Check your input and try again.
NM_NO_CREATION	Object already exists, no creation	An attempt was made to create an object that already exists.	Check your input and try again. Verify that you are not entering information that was entered previously.
NM_INCONSISTENT_VALUE	Object has inconsistent value	An attempt was made to enter a value that is inconsistent for the type of entry (for example, entering an ending value that is less than a starting value).	Review all related configuration parameters to ensure that they are consistent with each other. The problem might not be with this parameter, but with another.
NM_RESOURCE_UNAVAILABLE	There is no more space available	There is not enough memory in the system to process this request. This is usually caused by either heavy memory usage by some process, or memory that is not released after being used.	Close down some system processes (tasks). If the problem continues, delete entries in some system tables, such as user account, routing table entries, or DNS entries. If the problem persists, reboot the system.
NM_BAD_VALUE	Object has bad value	An attempt was made to enter an invalid value for a configuration parameter.	Check your input and try again.
NM_BAD_INSTANCE	Object instance id is bad	An attempt was made to access a configuration parameter, but the <i>instance ID</i> (entry) is not valid. For example, a username with invalid characters, or an IP address this is not complete or is out of range.	Check your input and try again.
NM_ATTACH_ERROR_FAIL	Cannot attach error string to an event.	When the values of certain objects are changed or invalid, the system might attach a message to the event process. For some reason, the message could not be properly attached. This problem usually occurs when the system is running out of system resources (such as memory). This is usually caused by either heavy memory usage by some process, or memory is not released after being used.	Close down some system processes (tasks). If the problem continues, delete entries in some system tables, such as user account, routing table entries, or DNS entries. If the problem persists, reboot the system.
NM_GET_BUFF_FAILED	Cannot attach error string to an event because of memory problems	When the values of certain objects are changed or invalid, the system might attach a message to the event process. For some reason, the message could not be properly attached. This problem usually occurs when the system is running out of system resources (such as memory). This is usually caused by either heavy memory usage by some process, or memory is not released after being used.	Close down some system processes (tasks). If the problem continues, delete entries in some system tables, such as user account, routing table entries, or DNS entries. If the problem persists, reboot the system.

Regulatory Agency Updates

The following regulatory statements supplement the information found in the *OfficeConnect Remote Dual Analog Install Guide* and *User Guide*.

FCC Declaration of Conformity

We declare under our sole responsibility that the

Model: Description:

3C430000: OfficeConnect Remote Dual Analog

to which this declaration relates is in conformity with the following standards or other normative documents:

- ANSI C63.4-1002 Method of Measurement

Federal Communications Commission 47 CFR Part 15, subpart B

3Com Corporation, 5400 Bayfront Plaza, P.O. Box 58145, Santa Clara, CA 95052-8145

FCC Part 68 Statement

3Com Corporation

Model No: 3C430000

Made in USA

This equipment complies with Part 68 of the FCC Rules. On the bottom of this equipment is a label that contains, among other information, the FCC 68 registration number and Ringer Equivalence Number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the number of devices you may legally connect to your telephone line. In most areas, the sum of the REN of all devices connected to one line must not exceed five (5.0). You should contact your telephone company to determine the maximum REN for your calling area.

An FCC compliant telephone cord with a modular plug is provided with this equipment. This device connects to the telephone network via an RJ-11 plug and jack. The plug and jack also comply with FCC part 68 rules. Be sure that the telephone line you are connecting the modem to is a standard analog line and not a digital (PBX), party, or coin telephone line.

If this device causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But, if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could effect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If you experience trouble with this device, for repair and warranty information, call 3Com Technical Support at 1-800-NET-3COM.

In the event of device malfunction, all repairs should be performed by 3Com or an authorized agent. It is the responsibility of users requiring service to report the need for service to our company or to one of our authorized agents. In the event service is required, refer to the Technical Support insert for information. Service can be obtained at:

3Com Corporation
5400 Bayfront Plaza, P.O. Box 58145
Santa Clara, CA 95052-8145

If the device is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

This registered device is capable of providing users access to interstate providers of operator services through the use of equal access codes.

This registered device provides proper answer supervision to the PSTN when DID calls are answered by the called station, answered by the attendant, routed to a recorded announcement that can be administered by the CPE user, or routed to a dial prompt and this device returns answer supervision on all DID calls forwarded to the PSTN. Permissible exceptions are as follows: a call is unanswered, a busy tone is received, a recorded tone is received.

Fax Branding

The telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent, an identification of the business or other entity, or other individual sending the message, and the telephone number of the sending machine or of such business, or other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

CSA and NRTL/C Safety Listing

This Information Technology Equipment is CSA and NRTL/C listed for both the Canadian and US markets respectively.

Industry Canada Statement

The Industry Canada (IC) label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operation, and safety requirements. Industry Canada does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by

the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.



CAUTION: Users should not attempt to make electrical ground connections by themselves, but should contact the appropriate inspection authority or an electrician, as appropriate.



Notice: The **Ringer Equivalence Number (REN)** assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of Ringer Equivalence Numbers of all the devices does not exceed 5.