

10 Statistics Menus

This chapter describes the controls and fields in the Show Statistics (*stats*) local client. Show Statistics displays statistical parameters that report on terminal functions.

The following topics are covered in this chapter:

- ❑ “Accessing Statistical Parameters” on page 10-1
- ❑ “Components of the Show Statistics Window” on page 10-1
- ❑ “Contents of the Statistics Hide Boxes” on page 10-2

For information about the other menu items under Statistics in the Console menu bar, see the *NCDware System Administrator's Guide for UNIX Systems*.

Accessing Statistical Parameters

To access the statistical parameters from the Console, select the Show Statistics item in the Console window's Statistics menu (Statistics ⇒ Show Statistics). Clicking on a hide button displays the contents of the hide box.

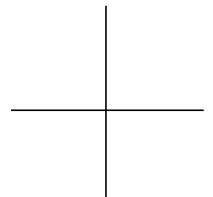
For other ways to display and start this client and information about disabling the client, see the *System Administrator's Guide*.

Components of the Show Statistics Window

Show Statistics is composed of hide boxes providing access to fields that correspond to read-only remote configuration parameters.

The Show Statistics window has a menu bar with a File menu and a Sections menu, a messages area, and several buttons:

- ❑ The File menu provides the following commands:
 - `Connect to New Unit`—Presents a popup box requesting a terminal name and the password required for access to the statistical database on that terminal and displays the terminal's Show Statistics window.



You can use the Configuration daemon read/write password, the Configuration daemon read-only password (default is public), or the global password.

- `close`—Closes the Show Statistics window.
- ❑ The Sections menu lists the Show Statistics hide boxes, giving you an alternative way to open or to open or close all hide boxes with one selection.
- ❑ The Messages area located below the hide boxes displays messages from the client.
- ❑ The three buttons along the bottom of the window are:
 - `Update`—Updates the statistical displays
 - `Clear All`—Resets all statistics to zero
 - `Cancel`—Closes the Show Statistics client

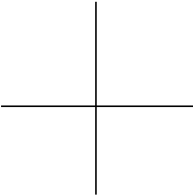
Contents of the Statistics Hide Boxes

This section describes the hide boxes in the Show Statistics window, including a description of each parameter and the name of the corresponding remote configuration parameter.

Ethernet Statistics

The parameters in the Ethernet hide box report statistics on the terminal's Ethernet interface.

Ethernet Field	Description	Corresponding Parameter
Interfaces Table	Table of read-only Ethernet interface statistics	<code>enet-interfaces-table</code>



Font Usage Statistics

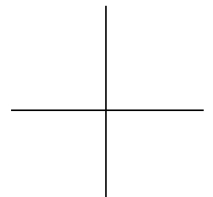
The parameters in the Font Usage hide box report statistics on font usage.

Font Usage Field	Description	Corresponding Parameter
Cache Size	Size of the font cache (in bytes)	font-cache-size
Cache Used	Portion of the font cache in use (in bytes)	font-cache-used
Number of Fonts in Cache	Number of fonts in the cache	font-number-of-fonts-in-cache
Total Fonts Loaded	Number of fonts loaded since the terminal was last reset	font-total-fonts-loaded
Objects Currently in Use	Number of font objects currently in use	font-objects-currently-in-use
Cache Hits	Number of font cache hits	font-cache-hits
Object Count	Number of font objects	font-object-count

ICMP Statistics

The parameters in the ICMP hide box report statistics on terminal communications using ICMP.

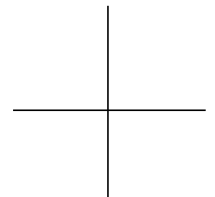
ICMP Statistics Field	Description	Corresponding Parameter
Packets Received	Total number of ICMP messages received by the terminal (including all messages counted by icmp-packets-received-with-errors)	icmp-packets-received
Packets Received with Errors	Number of ICMP messages received by the terminal and determined to have ICMP-specific errors	icmp-packets-received-with-errors
Destination Unreachables Received	Number of ICMP Destination Unreachable messages received	icmp-destination-unreachables-received



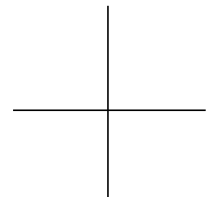
Contents of the Statistics Hide Boxes

ICMP Statistics Field	Description	Corresponding Parameter
Time Exceededs Received	Number of ICMP Time Exceeded messages received	icmp-time-exceededs-received
Parameter Problems Received	Number of ICMP Parameter Problem messages received	icmp-parameter-problems-received
Source Quenches Received	Number of ICMP Source Quench messages sent	icmp-source-quenches-received
Redirects Received	Number of ICMP Redirect messages received	icmp-redirects-received
Echo Requests Received	Number of Echo (request) messages received	icmp-echo-requests-received
Echo Replies Received	Number of Echo Reply messages received	icmp-echo-replies-received
Timestamps Requests Received	Number of Timestamp (request) messages received	icmp-timestamp-requests-received
Timestamp Replies Received	Number of Timestamp (replies) messages received	icmp-timestamp-replies-received
Address Mask Requests Received	Number of Address Mask Request messages received	icmp-address-mask-requests-received
Address Mask Replies Received	Number of Address Mask Reply messages received	icmp-address-mask-replies-received
Packets Transmitted	Total number of ICMP messages that the terminal attempted to send (including messages counted by icmp-packets-unable-to-be-transmitted)	icmp-packets-transmitted
Packets Unable to be Transmitted	Number of ICMP messages that the terminal did not send due to problems discovered within ICMP, such as a lack of buffers (does not include errors discovered outside the ICMP layer)	icmp-packets-unable-to-be-transmitted

10-4 Statistics Menus



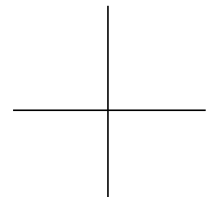
ICMP Statistics Field	Description	Corresponding Parameter
Destination Unreachables Transmitted	Number of Destination Unreachable messages sent	icmp-destination-unreachables-transmitted
Time Exceededs Transmitted	Number of Time Exceeded messages sent	icmp-time-exceededs-transmitted
Parameter Problems Transmitted	Number of Parameter Problem messages sent	icmp-parameter-problems-transmitted
Source Quenches Transmitted	Number of Source Quench messages sent	icmp-source-quenches-transmitted
Redirects Transmitted	Number of Redirect messages sent (always zero because non-routers do not send redirect messages)	icmp-redirects-transmitted
Echo Requests Transmitted	Number of Echo (request) messages sent	icmp-echo-requests-transmitted
Echo Replies Transmitted	Number of Echo Reply messages sent	icmp-echo-replies-transmitted
Timestamp Requests Transmitted	Number of ICMP Timestamp (request) messages sent	icmp-timestamp-requests-transmitted
Timestamp Replies Transmitted	Number of Timestamp Reply messages sent	icmp-timestamp-replies-transmitted
Address Mask Requests Transmitted	Number of Address Mask Request messages sent	icmp-address-mask-requests-transmitted
Address Mask Replies Transmitted	Number of Address Mask Reply messages sent	icmp-address-mask-replies-transmitted



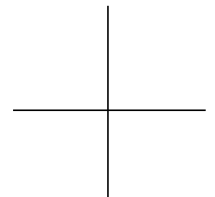
IP Statistics

The parameters in the IP hide box report statistics on terminal communications using IP.

IP Field	Description	Corresponding Parameter
IP Forwarding Type	Whether the terminal is acting as an IP gateway when forwarding datagrams that were not addressed to the terminal	ip-forwarding-type
Packets Received	Total number of input datagrams received from interfaces (including datagrams received in error)	ip-packets-received
Packets Received with Errors in IP Header	Number of input datagrams discarded due to errors in their IP headers (including bad checksums, mismatched version numbers, incorrect format, exceeded time-to-live, and errors discovered in processing their IP options)	ip-packets-received-with-errors-in-ip-header
Packets Received with Incorrect Address	Number of input datagrams discarded because of an invalid address for the terminal in the IP header destination field (including invalid addresses, addresses of unsupported classes, and non-local addresses)	ip-packets-received-with-incorrect-address
Packets Forwarded	Number of input datagrams for which the terminal was not the final IP destination, resulting in attempts to find routes to forward them to their final destinations	ip-packets-forwarded
Packets Received with Unknown Protocols	Number of locally addressed datagrams received successfully but discarded because of an unknown or unsupported protocol	ip-packets-received-with-unknown-protocols



IP Field	Description	Corresponding Parameter
Received Packets Discarded	Number of input datagrams for which no problem was encountered to prevent their continued processing, but were discarded anyway; for example, for lack of buffer space (does not include datagrams discarded while awaiting assembly)	ip-packets-received-and-discarded
Received Packets Delivered	Number of input datagrams successfully delivered to IP user protocols (including ICMP)	ip-packets-received-and-delivered
Packet Transmission Requests	Number of datagrams that local IP user protocols (including ICMP) supplied to IP in requests for transmission (does not include datagrams counted in ip-packets-forwarded)	ip-packet-transmission-requests
Packet Transmission Requests Discarded	Number of output datagrams for which no problem was encountered to prevent transmission, but were discarded anyway; for example, for lack of buffer space (includes datagrams counted in ip-packets-forwarded , if such packets met this discretionary discard criterion)	ip-packet-transmission-requests-discarded
Packet Transmission Requests without Routes	Number of datagrams discarded because no route could be found to transmit them to their destination. Includes any packets counted in ip-packets-forwarded that met this criterion (including datagrams that a host cannot route because its default gateways are down)	ip-packet-transmission-requests-without-routes
Packet Reassembly Timeout	Maximum number of seconds that the terminal holds fragments awaiting reassembly	ip-packet-reassembly-timeout



Contents of the Statistics Hide Boxes

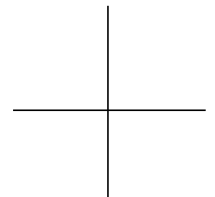
IP Field	Description	Corresponding Parameter
Packet Reassemblies Required	Number of IP fragments received that need to be reassembled at the terminal	ip-packet-reassemblies-required
Packet Reassemblies Completed	Number of datagrams successfully reassembled	ip-packet-reassemblies-completed
Packet Reassemblies Not Completed	Number of failures detected by the IP reassembly algorithm	ip-packet-reassemblies-not-completed
Packet Fragmentations Completed	Number of datagrams that the terminal successfully fragmented	ip-packet-fragmentations-completed
Packet Fragmentations Not Completed	Number of datagrams discarded because they could not be fragmented at the terminal	ip-packet-fragmentations-not-completed
Packet Fragments Created	Number of datagram fragments generated as a result of fragmentation at the terminal	ip-packet-fragments-created
Subnet Address	Current subnet address for the terminal	ip-subnet-mask

Loadable Modules Statistics

The statistics in the Loadable Modules hide box report on the modules that are currently loaded.

Loadable Modules Field	Description	Corresponding Parameter
Currently Loaded	Information about currently loaded modules (including module name, memory used, and version)	modules-loaded

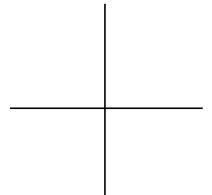
10-8 Statistics Menus



NCDnet Statistics

The parameters in the NCDnet hide box report statistics on terminal communications using NCDnet (DECnet).

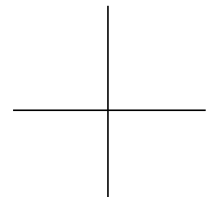
NCDnet Statistics Field	Description	Corresponding Parameter
Node Address	Current DECnet address of the terminal	ncdnet-node-address
Data Blocks Sent	Number of data messages sent over DECnet	ncdnet-data-blocks-sent
Data Blocks Received	Number of data messages received over DECnet	ncdnet-data-blocks-received
Bytes Sent	Number of bytes transmitted over DECnet	ncdnet-bytes-sent
Bytes Received	Number of bytes received over DECnet	ncdnet-bytes-received
Hello Packets Sent	Number of DECnet Hello packets sent	ncdnet-hello-packets-sent
Hello Packets Received	Number of DECnet Hello packets received	ncdnet-hello-packets-received
Count Circuit Down	Number of circuit down events that occurred	ncdnet-count-circuit-down
Inbound Errors	Number of DECnet receive errors	ncdnet-inbound-errors
Outbound Errors	Number of DECnet transmit errors	ncdnet-outbound-errors
Seconds Since Zeroed	Number of seconds since the DECnet statistics were last reset to zero	ncdnet-seconds-since-zeroed



NCDnet Name Service Statistics

The parameters in the NCDnet Name Service hide box report statistics on name service actions in a DECnet network.

NCDnet Name Service Field	Description	Corresponding Parameter
Name Requests	Number of times the NCD name resolver was invoked	ncdnet-name-requests
Numerical Addresses	Number of times the name resolver was invoked with the DECnet name in numerical format, such as 1.17	ncdnet-name-numerical-addresses
Name Cache Hits	Number of local name cache invocations in which the answer was found	ncdnet-name-cache-hits
Name Server Hits	Number of times the name resolver was invoked and the answer was found by consulting the name servers	ncdnet-name-server-hits
Name Cache Overflows	Number of times a valid entry in the local name cache was deleted to make room for a new entry	ncdnet-name-cache-overflows
<i>Errors section</i>		
No Such Name Errors	Number of times the DECnet name servers returned No Such Name error messages in response to name request	ncdnet-name-no-such-name-errors
Bad Name Errors	Number of Bad Name errors returned by the name servers (indicates a badly formed name)	ncdnet-name-bad-name-errors
Name Server Response Errors	Number of badly formed responses returned by the name servers	ncdnet-name-server-response-errors
No Server Responses	Number of times the name servers did not respond to name requests	ncdnet-name-no-server-responses
System Errors	Number of times the name resolver encountered a general system error	ncdnet-name-system-errors

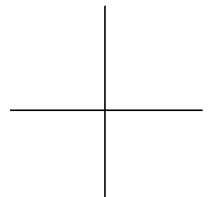


NCDnet Name Service Field	Description	Corresponding Parameter
Memory Allocation Failures	Number of times the name resolver could not allocate required memory	ncdnet-name-memory-allocation-failures

Network Buffers Statistics

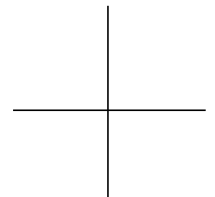
The parameters in this hide box report statistics on network buffers.

Network Buffers Field	Description	Corresponding Parameter
Total Buffers	Total number of network buffers	net-total-buffers
Available Buffers	Number of unallocated network buffers	net-available-buffers
Total Cluster Buffers	Total number of large contiguous network buffers in the terminal	net-total-cluster-buffers
Available Cluster Buffers	Number of unallocated large contiguous network buffers	net-available-cluster-buffers
Reserved Data Buffers	Number of network buffers reserved, but not yet allocated, for storing user data within the protocol stacks	net-reserved-data-buffers
Buffer Not Available Errors	Number of times the networking code initiated error recovery procedures because it could not allocate a network buffer	net-buffer-not-available-errors
Buffer Waits	Number of times the networking code blocked while waiting for network buffers to become available	net-buffer-waits



Contents of the Statistics Hide Boxes

Network Buffers Field	Description	Corresponding Parameter
<i>Used Buffers section</i>		
Packet Data Buffers	Number of packet data buffers	net-packet-data-buffers
Packet Header Buffers	Number of network buffers allocated for storing protocol header information	net-packet-header-buffers
Packet Fragment Reassembly Buffers	Number of network buffers allocated for storing IP packet fragments for reassembly	net-packet-fragment-reassembly-buffers
Connection Control Structure Buffers	Number of network buffers allocated for storing connection control structures	net-connection-control-structure-buffers
Connection Name Buffers	Number of network buffers allocated for storing connection names	net-connection-name-buffers
Connection Option Buffers	Number of network buffers allocated for storing connection options	net-connection-option-buffers
Protocol Control Structure Buffers	Number of network buffers allocated for storing protocol control structures	net-protocol-control-structure-buffers
Interface Address Buffers	Number of buffers allocated for storing network interface address information	net-interface-address-buffers
ARP Table Entry Buffers	Number of network buffers allocated for storing ARP table entries	net-arp-table-entry-buffers



Network Interfaces Statistics

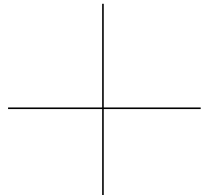
The parameters in this hide box report on network interface statistics.

Network Interfaces Field	Description	Corresponding Parameter
Number of Interfaces	Number of network interfaces	net-number-of-interfaces
Interfaces Table	Table of network interface characteristics	net-interfaces-table

NFS Statistics

The parameters in this hide box report statistics on file access using NFS.

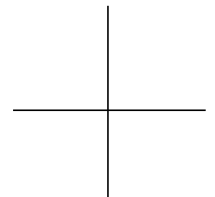
NFS Field	Description	Corresponding Parameter
<i>Client NFS section</i>		
Null Requests	Number of NFS null operations requested by the NFS Client	nfs-null-requests
Get Attributes Requests	Number of NFS Get Attributes operations requested by the NFS client	nfs-get-attributes-requests
Set Attributes Requests	Number of NFS Set Attribute operations requested by the NFS client	nfs-set-attributes-requests
Get Root Requests	Number of NFS Get File System Root operations requested by the NFS client	nfs-get-root-requests
Path Lookup Requests	Number of NFS File Name Component Lookup operations requested by the NFS client	nfs-path-lookup-requests
Read Symlink Requests	Number of NFS Read Link operations requested by the NFS client	nfs-read-symlink-requests



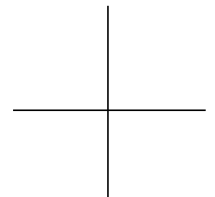
Contents of the Statistics Hide Boxes

NFS Field	Description	Corresponding Parameter
Read Data Requests	Number of NFS Read operations requested by the NFS client	nfs-read-data-requests
Write Data Cache Requests	Number of NFS Write Data Cache operations requested by the NFS client	nfs-write-data-cache-requests
Write Data Requests	Number of NFS Write Data Cache operations requested by the NFS client	nfs-write-data-requests
File Create Requests	Number of NFS File Create operations requested by the NFS client	nfs-file-create-requests
File Remove Requests	Number of NFS File Remove operations requested by the NFS client	nfs-file-remove-requests
File Rename Requests	Number of NFS File Rename operations requested by the NFS client	nfs-file-rename-requests
Link Create Requests	Number of NFS Create Link operations requested by the NFS client	nfs-link-create-requests
Symlink Create Requests	Number of NFS Create Symbolic Link operations requested by the NFS client	nfs-symlink-create-requests
Directory Create Requests	Number of NFS Create Directory operations requested by the NFS client	nfs-directory-create-requests
Directory Remove Requests	Number of NFS Remove Directory operations requested by the NFS client	nfs-directory-remove-requests
Directory Contents Requests	Number of NFS Read Directory operations requested by the NFS client	nfs-directory-contents-requests

10-14 Statistics Menus



NFS Field	Description	Corresponding Parameter
Get File System Stats Requests	Number of NFS Stat File System operations requested by the NFS client	nfs-get-file-system-stats-requests
<i>Server NFS section</i>		
Null Requests	Number of NFS read directory operations received by the terminal	nfs-received-null-requests
Get Attributes Requests	Number of NFS create directory operations received by the terminal	nfs-received-get-attributes-requests
Set Attributes Requests	Number of NFS set attribute operations received by the terminal	nfs-received-set-attributes-requests
Get Root Requests	Number of NFS get file system root operations received by the terminal	nfs-received-get-root-requests
Path Lookup Requests	Number of NFS filename component lookup operations received by the terminal	nfs-received-path-lookup-requests
Read Symlink Requests	Number of NFS read link operations received by the terminal	nfs-received-read-symlink-requests
Read Data Requests	Number of NFS read operations received by the terminal	nfs-received-read-data-requests
Write Data Cache Requests	Number of NFS write data cache operations received by the terminal	nfs-received-write-data-cache-requests
Write Data Requests	Number of NFS write data operations received by the terminal	nfs-received-write-data-requests
File Create Requests	Number of NFS create file operations received by the terminal	nfs-received-file-create-requests
File Remove Requests	Number of NFS remove file operations received by the terminal	nfs-received-file-remove-requests
File Rename Requests	Number of file rename operations received by the terminal	nfs-received-file-rename-requests

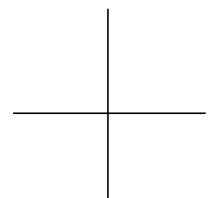


NFS Field	Description	Corresponding Parameter
Link Create Requests	Number of NFS create link operations received by the terminal	nfs-received-link-create-requests
Symlink Create Requests	Number of NFS create symbolic link operations received by the terminal	nfs-received-symlink-create-requests
Directory Create Requests	Number of NFS create directory operations received by the terminal	nfs-received-directory-create-requests
Directory Remove Requests	Number of NFS remove directory operations received by the terminal	nfs-received-directory-remove-requests
Directory Contents Requests	Number of NFS read directory operations received by the terminal	nfs-received-directory-contents-requests
Get File System Stats Requests	Number of NFS stats file system operations received by the terminal	nfs-received-get-file-system-stats-requests

Parallel Daemon Statistics

The parameters in this hide box report about parallel port software functions. This hide box contains the Parallel Daemons Statistics table, which corresponds to the **parallel-daemons-statistics-table** parameter.

Table Entry	Description
Port Number	The identifying number of the parallel port
Connections Accepted	The number of connections to the Parallel daemon
Connections with Access Control Errors	The number of connections closed by the Parallel daemon because the remote address was not in the Parallel daemon's access control list
Connections with I/O Errors	The number of connections closed by the Parallel daemon because of a local I/O error, including the user aborting the connection through a local mechanism
Connections with Normal Completion	The number of connections closed by the remote host, which is the normal mode of ending a Parallel daemon connection



Serial Statistics

The parameters in this hide box report statistics on the physical serial interfaces. This hide box contains the Interface Statistics table, which corresponds to the **serial-interface-statistics-table** parameter.

Table Entries	Description
Port Number	The identifying number of the serial port
Reception Overruns	The number of times an incoming octet overwrote a previously received octet in the UART's buffer
Reception Frame Errors	The number of times an incoming octet had bad bit alignment
Reception Parity Errors	The number of times the parity bit of an incoming octet was incorrect
Reception Break Errors	The number of times a stop bit was not received at the expected time after a start bit and the intervening bits were all zero
Total Characters Transmitted	The total number of characters transmitted
Total Transmit Interrupts	The total number of transmission interrupts
Total Characters Received	The total number of characters received
Total Receive Interrupts	The total number of reception interrupts
Total Receive Errors	The total number of reception errors

Serial Daemons Statistics

The parameters in this hide box report statistics on serial port software functions. This hide box contains the Serial Daemons Statistics table, which corresponds to the **serial-daemons-statistics-table** parameter.

Table Entries	Description
Port Number	The identifying number of the serial port
Connections Accepted	The number of connections to the Serial daemon

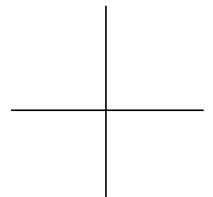
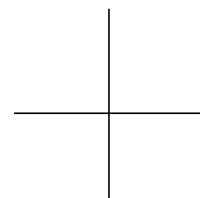


Table Entries	Description
Connections with Access Control Errors	The number of connections closed by the Serial daemon because the remote address was not in the Serial daemon's access control list
Connections with I/O Errors	The number of connections closed by the Serial daemon because of a local I/O error, including the user aborting the connection through a local mechanism
Connections with Normal Completion	The number of connections closed by the remote host, which is the normal mode of ending a Serial daemon connection

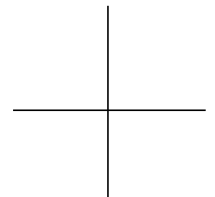
SNMP Statistics

The parameters in this hide box report statistics on SNMP. For statistics that refer to the PDU (Protocol Data Unit), "error-status" field, see SNMP specifications for the relevant error code.

SNMP Field	Description	Corresponding Parameter
Packets Received	Total number of messages delivered to SNMP from the transport service	snmp-packets-received
Packets Transmitted	Total number of messages passed from SNMP to the transport service	snmp-packets-transmitted
Packets Received with Bad Versions	Total number of messages delivered that were for an unsupported SNMP version	snmp-packets-received-with-bad-versions
Packets Received with Bad Community Names	Total number of messages delivered to SNMP that used an unknown community name	snmp-packets-received-with-bad-community-names
Packets Received with Bad Community Uses	Total number of messages delivered to SNMP that represented an operation that was not allowed by the SNMP community named in the message	snmp-packets-received-with-bad-community-uses

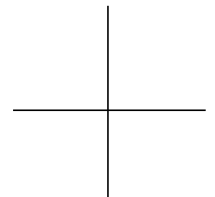


SNMP Field	Description	Corresponding Parameter
Packets Received with ASN.1 Errors	Number of ASN.1 or BER errors encountered by SNMP when decoding received messages	snmp-packets-received-with-asn1-errors
Packets Received with Bad Variable Types	Number of SNMP PDUs delivered to SNMP that had an unknown PDU type	snmp-packets-received-with-bad-variable-types
Too Big Error Responses Received	Number of PDUs generated by SNMP with “tooBig” in the “error-status” field	snmp-too-big-error-responses-received
Bad Variable Name Error Responses Received	Number of PDUs delivered to SNMP with the value of “noSuchName” in the “error-status” field	snmp-bad-variable-name-error-responses-received
Bad Variable Values Error Responses Received	Number of PDUs delivered to SNMP for which the value of the “error-status” field is “badValue”	snmp-bad-variable-values-error-responses-received
Read-Only Variable Error Responses Received	Number of valid PDUs that are delivered to SNMP for which the value of the “error-status” field is “readonly.” Generating such a PDU is a protocol error	snmp-read-only-variable-error-responses-received
General Error Responses Received	Total number of PDUs generated for which the value of the “error-status” field is “genErr”	snmp-general-error-responses-received
Variable Gets Completed	Total number of MIB objects successfully retrieved as the result of receiving valid “Get-Request” and “Get-Next” PDUs	snmp-variable-gets-completed
Variable Sets Completed	Total number of MIB objects changed after receiving valid “Set-Request” PDUs	snmp-variable-sets-completed
Get Requests Received	Total number of “Get-Request” PDUs accepted and processed	snmp-get-requests-received



Contents of the Statistics Hide Boxes

SNMP Field	Description	Corresponding Parameter
Get-Next Requests Received	Total number of SNMP “Get-Next” PDUs accepted and processed	snmp-get-next-requests-received
Set Requests Received	Total number of “Set-Requests” PDUs accepted and processed	snmp-set-requests-received
Get Responses Received	Total number of “Get-Responses” PDUs accepted and processed	snmp-get-responses-received
Traps Received	Total number of Trap PDUs accepted and processed	snmp-traps-received
Too Big Error Responses Transmitted	Total number of PDUs generated with “tooBig” in the “error-status” field	snmp-too-big-error-responses-transmitted
Bad Variable Name Error Responses Transmitted	Total number of PDUs generated with “error-status” of “noSuchName”	snmp-bad-variable-name-error-responses-transmitted
Bad Variable Values Error Responses Transmitted	Total number of PDUs generated with “error-status” of “badValue”	snmp-bad-variable-values-error-responses-transmitted
Read-Only Variable Error Responses Transmitted	Total number of valid PDUs generated with “error-status” of “readOnly”	snmp-read-only-variable-error-responses-transmitted
General Error Responses Transmitted	Total number of PDUs generated with “error-status” of “genErr”	snmp-general-error-responses-transmitted
Get Requests Transmitted	Total number of “Get-Request” PDUs generated	snmp-get-requests-transmitted
Get-Next Requests Transmitted	Total number of “Get-Next” PDUs generated	snmp-get-next-requests-transmitted
Set Requests Transmitted	Total number of “Set-Requests” PDUs generated	snmp-set-requests-transmitted
Get Responses Transmitted	Total number of “Get-Response” PDUs generated	snmp-get-responses-transmitted

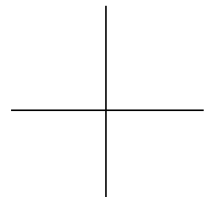


SNMP Field	Description	Corresponding Parameter
Traps Transmitted	Total number of trap PDUs generated	snmp-traps-transmitted

TCP Statistics

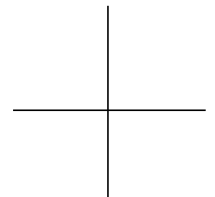
The parameters in this hide box report statistics on terminal communications using TCP.

TCP Statistics Field	Description	Corresponding Parameter
Retransmission Algorithm Type	Algorithm that determines the timeout value used for retransmitting unacknowledged octets (only the Van-Jacobson algorithm is supported)	tcp-retransmission-algorithm-type
Minimum Retransmission Time	Minimum time (in seconds) permitted for the retransmission timeout)	tcp-minimum-retransmission-time
Maximum Retransmission Time	Maximum time (in seconds) permitted for retransmission	tcp-maximum-retransmission-time
Maximum Number of Connections	Limit on the total number of TCP connections supported; should be -1 in a terminal whose maximum number of transmissions is dynamic	tcp-maximum-number-of-connections
Active Connect Attempts	Number of times TCP connections made a direct transition to the SYN-SENT state from the CLOSED state	tcp-active-connect-attempts
Passive Connects Attempts	Number of times TCP connections made a direct transition to the SYN-RCVD state from the LISTEN state	tcp-passive-connects-attempts

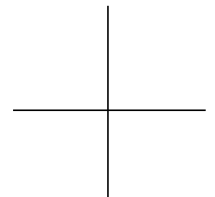


Contents of the Statistics Hide Boxes

TCP Statistics Field	Description	Corresponding Parameter
Failed Connect Attempts	Number of times TCP connections made a direct transition to the CLOSED state from either the SYN-SENT state or the SYN-RCVD state and to the LISTEN state from the SYN-RCVD state	tcp-failed-connect-attempts
Established Connections	Number of TCP connections whose current state is either ESTABLISHED or CLOSE-WAIT	tcp-established-connections
Connections Timed Out on Retransmissions	Number of connections that progressed directly to the CLOSED state because too many retransmissions were sent	tcp-connections-timed-out-on-retransmissions
Connections Timed Out on Keepalives	Number of connections that progressed directly to the CLOSED state because too many keepalives were sent	tcp-connections-timed-out-on-keepalives
Connections Reset	Number of times connections made a direct transition to the CLOSED state from the established state or the CLOSED-WAIT state	tcp-connections-reset
Packets Received	Total number of segments received, including those received in error; includes segments received on currently established connections	tcp-packets-received
Packets Transmitted	Total number of segments sent, including those on current connections, but excluding those containing only retransmitted octets	tcp-packets-transmitted



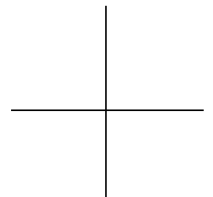
TCP Statistics Field	Description	Corresponding Parameter
Packets Retransmitted	Total number of segments retransmitted (transmitted containing one or more previously transmitted octets)	tcp-packets-retransmitted
Ack Packets Received	Number of packets received that contained no data, only the ACK flag turned on	tcp-ack-packets-received
Ack-Only Packets Transmitted	Number of packets transmitted that acknowledged one or more octets of unacknowledged data	tcp-ack-only-packets-transmitted
Packets with Errors Received	Total number of segments received in error (such as bad TCP checklists)	tcp-packets-with-errors-received
Keepalive Packets Transmitted	Number of TCP keepalive packets transmitted	tcp-keepalive-packets-transmitted
Reset Packets Transmitted	Number of segments sent containing the RST flag	tcp-reset-packets-transmitted
Connection Table	Table listing TCP connections (including local and remote IP addresses and ports and the state of the connection)	tcp-connection-table



TCP/IP Name Service Statistics

The parameters in this hide box report statistics on name service protocols in a TCP/IP network.

TCP/IP Name Service Field	Description	Corresponding Parameter
Name Requests	Number of times the name resolver was invoked	tcpip-name-requests
Numerical Addresses	Number of invocations in which the name was in numerical format, such as 192.43.154.7	tcpip-name-numerical-addresses
Name Cache Hits	Number of invocations in which the answer was found in the local name cache	tcpip-name-cache-hits
Name Server Hits	Number of invocations in which the answer was found by consulting the name servers	tcpip-name-server-hits
Name Cache Overflows	Number of times a valid entry in the local name cache was deleted to make room for a new entry	tcpip-name-cache-overflows
<i>Errors section</i>		
No Such Name Errors	Number of “No Such Name” errors returned by the name servers	tcpip-no-such-name-errors
Bad Name Errors	Number of “Bad Name” errors returned by the name servers	tcpip-name-bad-name-errors
Name Server Response Errors	Number of badly formed responses returned by the name servers	tcpip-name-server-response-errors
No Server Responses	Number of times no response was received from the name servers	tcpip-name-no-server-responses
System Errors	Number of times the name resolver encountered a general system error	tcpip-name-system-errors



TCP/IP Name Service Field	Description	Corresponding Parameter
Memory Allocation Failures	Number of times the name resolver was unable to allocate required memory	tcpip-name-memory-allocation-failures

TFTP Statistics

The parameters in this hide box report statistics on file access using TFTP.

TFTP Field	Description	Corresponding Parameter
File Read Requests Transmitted	Number of read requests made by the TFTP client	tftp-file-read-requests-transmitted
File Write Requests Transmitted	Number of file write requests made by the TFTP client	tftp-file-write-requests-transmitted
Data Packets Received	Number of data packets received by the TFTP client	tftp-data-packets-received
Ack Packets Received	Number of TFTP ACK packets received by the TFTP client	tftp-ack-packets-received
No File Error Responses Received	Number of times a TFTP client received an error packet with error code "File not found"	tftp-no-file-error-responses-received
Bad Access Error Responses Received	Number of times the TFTP client received an error packet with error code "Access violation"	tftp-bad-access-error-responses-received
Disk Full Error Responses Received	Number of times a TFTP client received an error packet with error code "Disk full"	tftp-disk-full-error-responses-received
No Available Buffer Errors	Number of times a TFTP client failed to allocate a buffer	tftp-no-available-buffer-errors
Data Packets Transmitted	Number of TFTP data packets the TFTP client sent	tftp-data-packets-transmitted

Contents of the Statistics Hide Boxes

TFTP Field	Description	Corresponding Parameter
Ack Packets Transmitted	Number of TFTP ACK packets sent by the TFTP client	tftp-ack-packets-transmitted
Packets Retransmitted	Number of times a TFTP client retransmitted a TFTP packet	tftp-packets-retransmitted

Token-Ring Statistics

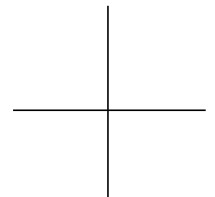
The parameters in this hide box report statistics on the Token-Ring interfaces.

Token-Ring Field	Description	Corresponding Parameter
Interface Table	Table of status and parameter values for an 802.5 Token-Ring interface	tokring-interface-table
Statistics Table	Table of statistics for each 802.5 Token-Ring interface	tokring-statistics-table

UDP Statistics

The parameters in this hide box report statistics on UDP communications.

UDP Statistics Field	Description	Corresponding Parameter
Packets Received	Total number of UDP datagrams delivered to UDP applications	udp-packets-received
Packets Received with Errors	Number of received UDP datagrams that could not be delivered for reasons other than the lack of an application at the destination port	udp-packets-received-with-errors
Packets Received with Unknown Port	Total number of received UDP datagrams for which there were no applications at the destination port	udp-packets-received-with-unknown-port
Packets Transmitted	Total number of UDP datagrams sent from the terminal	udp-packets-transmitted

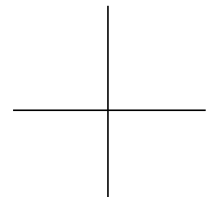


UDP Statistics Field	Description	Corresponding Parameter
Listener Table	Table of IP addresses and ports for the UDP listener	udp-listener-table

Unit Statistics

The statistics in this hide box report on miscellaneous terminal attributes.

Unit Field	Description	Corresponding Parameter
Version	Complete specification of the NCDware software version	unit-version
Terminal Model	Current terminal model	unit-terminal-model
Boot Monitor Version	Boot PROM version number	unit-boot-monitor-version
Keyboard Controller Version	Description of the keyboard controller	unit-keyboard-controller-version
SNMP System Object Id	Authoritative identification of the SNMP network management subsystem in the terminal	unit-snmp-system-object-id
Time Since Boot (seconds)	How long since the terminal last booted	unit-time-since-boot
Idle Time (seconds)	Estimated time since booting during which the X server was not performing any useful tasks	unit-idle-time
TCP/IP Service Level	A value that indicates the set of network services that the terminal offers	unit-tcpip-service-level
Code Memory Installed (bytes)	Amount of code RAM installed in the terminal	unit-code-memory-installed
Memory Installed (bytes)	Total amount of installed RAM (does not include special-purpose RAM, such as video memory)	unit-memory-installed



Unit Field	Description	Corresponding Parameter
Memory Available (bytes)	Amount of unallocated RAM	unit-memory-available
Block of Available Memory	Number of non-contiguous blocks of unallocated memory	unit-blocks-of-available-memory
Floating Point Exceptions	Total number of floating-point exceptions	unit-floating-point-exceptions

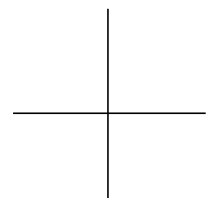
Wireless LAN Statistics

The parameters in the Wireless LAN hide box report statistics on wireless operations (Explora 400/450 terminals only).

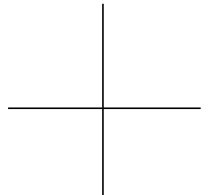
The Interface Table reports the status of the wireless LAN adapter and corresponds to the **pwireless-interface-table** parameter.

Wireless Interface Table Entry	Description
Domain	The domain used by the wireless PCMCIA card
Master Name	The current Master (Access Point) name
Master Node ID	The current Master (Access Point) node
Channel	The current channel
Subchannel	The current subchannel
ROM Version	The ROM version of the PCMCIA card
Country Code	The country code
Signal Strength	The signal strength of the last packet received

The Statistics Table on the next page reports performance statistics for the wireless LAN adapter and corresponds to the **pwireless-statistics-table** parameter.



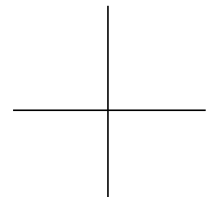
Wireless Statistics Table Entry	Description
Number of Hops	The number of hop periods
Number of Searches	The number of searches for other Masters
Times Master	The number of times the terminal has been Master
Times Resync	The number of times the terminal synchronized to a new master
Missed Syncs	The number of sync messages missed
RX Packets	The number of data packets received
TX Packets	The number of data packets transmitted
Lost CTS	The number of times RTS was sent without receiving a CTS
CTS Errors	The number of times CTS retries expired
ACK Errors	The number of times ACK retries expired
SID Mismatch	The number of mismatched security IDs
Missed SOBs	The number of Start of B messages missed
Corrupted Packets	The number of packets that passed CRC, but not length check
Adapter Resets	The number of times the wireless adapter had to reset for initialization or error recovery
Send Timeouts	The number of transmit timeouts
Receive Timeouts	The number of receive timeouts
Antenna Status Changes	The number of antenna status change (connect/disconnect) interrupts received
Roam Alarms	The number of roaming alarm packets received, which indicates that the signal strength is weak
In Syncs	The number of times the terminal synchronized to a Master station
Out Syncs	The number of the times the terminal lost contact with the Master station



XRemote Statistics

The parameters in this hide box report statistics on XRemote. Except for Packet Round Trip Time, these statistics are reported when XRemote is being used in non-TCP mode.

XRemote Field	Description	Corresponding Parameter
XRemote version	The version of XRemote protocol in use	xremote-xremote-version
State	State of the XRemote connection	xremote-state
Packets Transmitted	Number of XRemote packets transmitted, including packets retransmitted	xremote-packets-transmitted
Packet Transmission Errors	Number of errors encountered while trying to transmit packets	xremote-packet-transmission-errors
Packets Retransmitted	Number of Xremote packets retransmitted	xremote-packets-retransmitted
Packets Received	Number of XRemote packets received	xremote-packets-received
Packets with Errors Received	Number of XRemote packets received in error	xremote-packets-with-errors-received
Packets Received Out of Sequence	Number of XRemote packets received with an incorrect sequence number	xremote-packets-received-out-of-sequence
Packet Round Trip Time	Current approximation of the time (in milliseconds) elapsed from sending a packet until acknowledgment is received	xremote-packet-round-trip-time
Time-out Length	Current timeout period (in milliseconds). Packets not acknowledged in the timeout period are retransmitted	xremote-time-out-length
Transmit Window Size	Number of packets that may be transmitted before acknowledgment by the remote host is required	xremote-transmit-window-size



XRemote Field	Description	Corresponding Parameter
Next Transmit Sequence Number	The sequence number of the next packet to be transmitted	xremote-next-transmit-sequence-number
Oldest Unacknowledged Packet	The sequence number of the oldest unacknowledged transmitted packet	xremote-oldest-unacknowledged-packet
Receive Window Size	Number of packets that may be received from the remote host without acknowledgment	xremote-receive-window-size
Next Receive Sequence Number	The expected sequence number of the next packet to be received	xremote-next-receive-sequence-number

