

View the different types of iSCSI statistics

SANtricity 11.5

NetApp February 12, 2024

This PDF was generated from https://docs.netapp.com/us-en/e-series-santricity-115/sm-support/mactransmit-and-mac-receive-statistics.html on February 12, 2024. Always check docs.netapp.com for the latest.

Table of Contents

V	iew the different types of iSCSI statistics	1
	MAC transmit and MAC receive statistics	1
	Ethernet TCP/IP statistics	2
	iSCSI target statistics and local initiator statistics	4
	DCBX operational state statistics	4
	LLDP TLV statistics	5
	DCBX TLV statistics	6

View the different types of iSCSI statistics

You can review different sets of statistics as either raw or baseline statistics: Ethernet MAC statistics, Ethernet TCP/IP statistics, Target (protocol) statistics, Local initiator (protocol) statistics, DCBX operational state statistics, LLDP TLV statistics, and DCBX TLV statistics.

MAC transmit and MAC receive statistics

When you select Ethernet MAC statistics, these MAC transmit statistics appear. You can view each of these statistics as raw statistics or as baseline statistics.

Statistic	Definition
F	Frame count
В	Byte count
MF	Multicast frame count
BF	Broadcast frame count
PF	Pause frame count
CF	Control frame count
FDF	Frame deferral count
FED	Frame excess deferral count
FLC	Frame late collisions count
FA	Frame abort count
FSC	Frame single collision count
FMC	Frame multiple collisions count
FC	Frame collision count
FDR	Frame dropped count
JF	Jumbo frame count

When you select Ethernet MAC statistics, these MAC receive statistics appear.

Statistic	Definition
F	Frame count
В	Byte count
MF	Multicast frame count
BF	Broadcast frame count
PF	Pause frame count
CF	Control frame count
FLE	Frame length error count
FD	Frame dropped count
FCRCE	Frame CRC error count
FEE	Frame encoding error count
LFE	Large frame error count
SFE	Small frame error count
J	Jabber count
UCC	Unknown control frame count
CSE	Carrier sense error count

Ethernet TCP/IP statistics

When you select Ethernet TCP/IP statistics, the TCP statistics in this table appear. You can view each of these statistics as raw statistics or as baseline statistics.

Statistic	Definition
TxS	Transmitted segment count
TxB	Transmitted byte count
RTxTE	Retransmit timer expired count

Statistic	Definition
TxDACK	Transmit delayed ACK count
TxACK	Transmit ACK count
RxS	Received segment count
RxB	Received byte count
RxDACK	Received duplicate ACK count
RxACK	Received ACK count
RxSEC	Received segment error count
RxSOOC	Received segment out-of-order count
RxWP	Received window probe count
RxWU	Received window update count

When you select Ethernet TCP/IP statistics, the IP statistics in this table appear.

Statistic	Definition
TxP	Transmitted packet count
TxB	Transmitted byte count
TxF	Transmitted fragment count
RxP	Packets received count. Select Show IPv4 to show the IPv4 packets received count. Select Show IPv6 to show the IPv6 packets received count.
RxB	Received byte count
RxF	Received fragment count
RxPE	Received packet error count
DR	Datagram reassembly count
DRE-OLFC	Datagram reassembly error, overlapped fragment count

Statistic	Definition
DRE-OOFC	Datagram reassembly error, out-of-order fragment count
DRE-TOC	Datagram reassembly error, time-out count

iSCSI target statistics and local initiator statistics

When you select Target (protocol) statistics or Local initiator (protocol) statistics, the following statistics are shown. You can view each of these statistics as raw statistics or as baseline statistics.

Statistic	Definition
SL	Successful iSCSI login count
UL	Unsuccessful iSCSI login count
SA	Successful iSCSI authentication count (when authentication is enabled)
UA	Unsuccessful iSCSI authentication count (when authentication is enabled)
PDU	Correct iSCSI PDUs processed count
HDE	iSCSI PDUs with header digest errors count
DDE	iSCSI PDUs with data digest errors count
PE	PDUs with iSCSI protocol errors count
UST	Unexpected iSCSI session terminations count
UCT	Unexpected iSCSI connection termination count

DCBX operational state statistics

When you select Data Center Bridging Exchange (DCBX) Operational State Statistics, these statistics appear.

Statistic	Definition
iSCSI Host Port	Indicates the location of the detected host port in Controller #, Port # format.

Statistic	Definition
Priority Group	Indicates the operational state of the Priority Group (PG) application. The state is either Enabled or Disabled.
Priority-based Flow Control	Indicates the operational state of the Priority-based Flow Control (PFC) feature. The state is either Enabled or Disabled.
iSCSI Feature	Indicates the operational state of the Internet Small Computer System Interface (iSCSI) application. The state is either Enabled or Disabled.
FCoE Bandwidth	Indicates the state of the Fibre Channel over Ethernet (FCoE) Bandwidth. The state is either True or False.
No FCoE/FIP Map Mismatch	Indicates whether a map mismatch exists between FCoE and FCoE Initialization Protocol (FIP). The value is either True or False.

You can find additional DCBX operational state statistics in the state capture file.

LLDP TLV statistics

When you select Link Layer Discovery Protocol (LLDP) Type Length Value (TLV) Statistics, these statistics appear. Two sets of statistics appear: one for the local device and one for the remote device. The local device refers to the controller. The remote device refers to the peer device that the controller is attached to, typically a switch.

Statistic	Definition
iSCSI Host Port	Indicates the location of the detected host port in Controller #, Port # format.
Chassis ID	Indicates the chassis ID.
Chassis ID Subtype	Indicates the chassis ID subtype.
Port ID	Indicates the port ID.
Port ID Subtype	Indicates the port ID subtype.
Time to Live	Indicates the number of seconds that the recipient LLDP agent considers the information to be valid.

You can find additional LLDP TLV statistics in the state capture file.

DCBX TLV statistics

When you select Data Center Bridging Exchange (DCBX) Type Length Value (TLV) Statistics, these statistics appear:

- Local statistics The DCBX parameters configured on the controller at the factory.
- Operational statistics The DCBX parameters that result from DCBX negotiations.
- **Remote statistics** The DCBX parameters from the peer device that the controller is connected to, typically a switch.

Statistic	Definition
iSCSI Host Port	Indicates the location of the detected host port in Controller #, Port # format.
Flow Control Mode	The Flow Control Mode of the entire port. Valid values are Disabled, Standard, Per Priority, or Indeterminate.
Protocol	The communication protocol. Valid values are FCoE, FIP, iSCSI, or UNKNOWN.
Priority	Integer value indicating the priority number of the communication.
Priority Group	Integer value representing the priority group to which the protocol has been assigned.
Priority Group % Bandwidth	Percentage value indicating the amount of bandwidth allocated to the priority group.
DCBX PFC Status	Priority-based Flow Control (PFC) status of the specific port. The value is either enabled or disabled.

You can find additional DCBX TLV statistics in the state capture file.

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at http://www.netapp.com/TM are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.