

配置Microsoft Windows XP对MDS/IPS-8的iSCSI主机

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简介

Cisco的iSCSI驱动器（驻留在服务器上）是iSCSI解决方案的关键组件。这些iSCSI驱动拦截SCSI命令，压缩它们到IP包，并重发它们到Cisco SN 5420、Cisco SN 5428，Cisco SN5428-2或者Cisco MDS/IPS-8。本文为主机提供配置示例Microsoft Windows XP iSCSI给MDS/IPS-8。

先决条件

要求

在尝试此配置前，请保证您符合这些要求：

- 在您创建您的在MDS9000前的iSCSI配置，您需要安装是兼容对您的PC运行Microsoft Windows XP的iSCSI驱动。Cisco iSCSI驱动的多数当前版本Windows的2000//XP/2003可以在Cisco.com的[Cisco iSCSI驱动\(仅限注册用户\)](#)页找到。文件的名称是Cisco iSCSI驱动Win2k的版本版本号，并且可以在此页的表内被找到。

使用的组件

本文档中的信息基于以下软件和硬件版本：

- 有Microsoft Windows XP和Cisco iSCSI驱动版本3.1.2的PC

- 有软件版本的1.1.2 Cisco MDS 9216

```
canterbury# show module Mod Ports Module-Type Model Status ---
-----
1 16 1/2 Gbps FC/Supervisor DS-X9216-K9-SUP active
* 2 8 IP Storage Module DS-X9308-SMIP ok Mod Sw Hw World-Wide-Name(s) (WWN) ---
-----
1 1.1(2) 1.0
20:01:00:0c:30:6c:24:40 to 20:10:00:0c:30:6c:24:40 2 1.1(2) 0.3 20:41:00:0c:30:6c:24:40 to
20:48:00:0c:30:6c:24:40 Mod MAC-Address(es) Serial-Num ---
-----
1 00-0b-be-f8-7f-08 to 00-0b-be-f8-7f-0c JAB070804QK 2 00-05-30-00-ad-e2 to
00-05-30-00-ad-ee JAB070806SB * this terminal session canterbury# canterbury# show version
Cisco Storage Area Networking Operating System (SAN-OS) Software TAC support:
http://www.cisco.com/tac Copyright (c) 2002-2003 by Cisco Systems, Inc. All rights reserved.
The copyright for certain works contained herein are owned by Andiamo Systems, Inc. and/or
other third parties and are used and distributed under license. Software BIOS: version 1.0.7
loader: version 1.0(3a) kickstart: version 1.1(2) system: version 1.1(2) BIOS compile time:
03/20/03 kickstart image file is: bootflash:/k112 kickstart compile time: 7/13/2003 20:00:00
system image file is: bootflash:/s112 system compile time: 7/13/2003 20:00:00 Hardware RAM
963112 kB bootflash: 500736 blocks (block size 512b) slot0: 0 blocks (block size 512b)
canterbury uptime is 6 days 1 hours 11 minute(s) 5 second(s) Last reset at 783455 usecs
after Thu Aug 28 12:59:37 2003 Reason: Reset Requested by CLI command reload System version:
1.1(2) canterbury#
```

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

规则

期限MDS9000是指在MDS 9000系列(MD 9506， MDS9509或者MDS9216)的所有光纤信道(FC)交换产品。IPS刀片是指IP存储设备服务模块。

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

背景理论

IP存储体提供IP主机存取对于光纤信道(FC)存储设备。IP存储体是DS-X9308-SMIP。它提供透明SCSI路由。使用iSCSI协议的IP主机能透明访问在FC网络的SCSI (FCP)目标。IP主机发送在iSCSI协议数据单元封装的SCSI命令集(PDU)到在TCP/IP连接的一个MDS9000 IPS端口。在IP存储体上，连接提供以适当地配置的千兆以太网(GE)接口的形式。IP存储体使您创建虚拟iSCSI目标并且映射他们到物理FC目标可用在FC SAN。它提交FC目标到IP主机，好象物理目标本地附加。

通过IP存储体要求对存储设备的访问的每台iSCSI主机需要有安装的一兼容的iSCSI驱动。使用iSCSI协议，iSCSI驱动允许iSCSI主机传输SCSI请求和答复在IP网络。从主机操作系统的角度，iSCSI驱动看来是SCSI运输驱动程序，与主机中一条外围通道的FC驱动程序相似。从存储设备的角度，每台IP主机出现为一台FC主机。

路由SCSI从IP主机到FC存储设备包括这些主要操作：

- 传输iSCSI请求和答复在IP网络在主机和IP存储体之间。
- 路由SCSI请求和答复在主机在IP网络和FC存储设备之间(转换iSCSI对FCP反之亦然)。这由IP存储体执行。
- 传输FCP请求或答复在IP存储体和FC存储设备之间。

默认情况下IP存储模块不导入FC目标到iSCSI。在IP存储体安排FC目标可用iSCSI创始者前，动态或静态映射必须配置。当两个都被配置后，静态被映射的FC目标有一个配置的名称。在此配置中，提供静态映射示例。

使用动态映射，每次iSCSI主机连接到IP存储体的那，一个新的FC N端口创建，并且为此N端口和

pWWNs分配的nWWNs可能不同的。请使用静态映射方法，如果需要获取同样nWWNs，并且iSCSI的pWWNs主机它每次连接到IP存储体。静态映射在IP存储体可以用于访问有访问控制和逻辑单元编号的智能FC存储阵列(LUN)映射/根据创始者的pWWNs和nWWNs的屏蔽的配置。

您能控制对每个静态映射的iSCSI目标的访问，如果指定IP他们将通告的存储设备端口列表，并且指定iSCSI允许的发起者节点名列表访问它。FC基于分区的访问控制和基于iSCSI的访问控制是访问控制可以为iSCSI提供的二个机制。可以同时使用两个方法。

当iSCSI主机创建一iSCSI发现会话和查询所有iSCSI目标的，iSCSI发现发生。IP存储体返回iSCSI主机允许访问基于访问控制策略iSCSI目标仅的列表。

当IP主机启动iSCSI会话，iSCSI会话创建发生。IP存储体验证，如果指定的iSCSI目标(在会话登录请求)是静态被映射的目标和，如果真，验证IP主机的iSCSI节点名允许访问目标。如果IP主机没有权限，其登录被拒绝。

IP存储体然后创建一个FC虚拟N端口(N端口可能已经存在)此IP主机的，并且执行由IP主机访问FC目标pwwn FCID的一FC名称服务器查询。它使用IP主机虚拟N端口的pwwn作为名称服务器查询的请求方。因此，名称服务器执行的一次强制的pwwn区域查询并且回应查询。如果FCID由名称服务器返回，iSCSI会话接受。否则，登录请求被拒绝。

配置

本部分提供有关如何配置本文档所述功能的信息。

注意：要寻找关于用于本文的命令的其他信息，参考[Cisco MDS 9000系列命令参考、版本1.2.1a](#)和[Cisco MDS 9000系列软件配置指南，版本1.2.1a](#)配置指南。

注意：要查找本文档所用命令的其他信息，请使用[命令查找工具](#) ([仅限注册用户](#))。

网络图

本文档使用以下网络设置：

配置

本文档使用以下配置：

- 坎特伯雷(MDS9216)

坎特伯雷(MDS9216)

```
canterbury# sh run Building Configuration ... .. vsan
database vsan 601 !--- VSAN 601 has been used for iSCSI
targets. ... vsan database vsan 601 interface fc1/3
vsan 601 interface fc1/4 ... boot system
bootflash:/s112 boot kickstart bootflash:/k112 ip
domain-name cisco.com ip name-server 144.254.10.123 ip
default-gateway 10.48.69.129 ip route 10.48.69.149
255.255.255.255 interface GigabitEthernet2/1 ip routing
iscsi authentication none iscsi initiator ip-address
10.48.69.149 !--- Identifies the iSCSI initiator based
on the IP address. !--- A virtual N port is created for
each NIC or network interface. static pWWN
20:03:00:0c:30:6c:24:4c !--- Defining the PC Langur`s
```

```

pwwn above; this is necessary here since lunmasking is
!--- enforced on the IBM Shark, but not on the JBOD.
Therefore, pWWN must be statically !--- bound to the
initiator to be able to access and manage disks on IBM
Shark. vsan 601 !--- VSAN 601 has been used for iSCSI
targets. !--- Targets by way of VSAN 601 are accessible
by iSCSI initiators. The !--- targets are defined below.
Create a static iSCSI virtual target !--- for Seagate
JBOD. iscsi virtual-target name san-fc-jbod-1 pWWN
21:00:00:20:37:67:f7:a2 advertise interface
GigabitEthernet2/1 initiator ip address 10.48.69.149
permit !--- Create a static iSCSI virtual target for IBM
Shark. iscsi virtual-target name shark-c8 pWWN
50:05:07:63:00:c8:94:4c advertise interface
GigabitEthernet2/1 initiator ip address 10.48.69.149
permit ... !--- Here, the zone named 'Zone1' is used
under VSAN 601 for connectivity. !--- Both initiator and
targets are assigned as members of this zone. switchname
canterbury zone name Zone1 vsan 601 member pWWN
50:05:07:63:00:c8:94:4c !--- This is IBM Shark. member
pWWN 20:03:00:0c:30:6c:24:4c !--- This is PC Langur.
member pWWN 21:00:00:20:37:67:f7:a2 !--- This is Seagate
JBOD. member symbolic-nodename 10.48.69.149 !--- You
have this entry since zone membership is based on pWWN
(not on IP address). zoneset name ZoneSet1 vsan 601
member Zone1 zoneset activate name ZoneSet1 vsan 601
.... interface GigabitEthernet2/1 ip address
10.48.69.222 255.255.255.192 iscsi authentication none
no shutdown .... interface fc1/3 no shutdown interface
fc1/4 no shutdown ... interface mgmt0 ip address
10.48.69.156 255.255.255.192 interface iscsi2/1 no
shutdown canterbury#

```

验证

本部分所提供的信息可用于确认您的配置是否正常工作。

[命令输出解释程序工具](#) ([仅限注册用户](#)) 支持某些 **show** 命令，使用此工具可以查看对 **show** 命令输出的分析。

在PC上，请去控制面板并且检查这些项目：

- **网络连接**->**本地连接**->**TCP/IP属性**
- **iSCSI设置**->**目标的状况**(查看屏幕截图，请参阅[从本文的PC部分的显示](#))。

在MDS9216，请发出这些命令验证连接：

- **show zone status** —显示区域信息。
- **show zone active vsan 601** —请显示属于指定的VSAN的区域。
- **show fcns database vsan 601** —显示一特定VSAN的名称服务器信息。
- **show fcns database detail vsan 601** —显示给的VSAN的本地条目。
- **show flogi database vsan 601** —显示一特定VSAN的FLOGI服务器信息。
- **show vsan membership** —显示不同的VSAN的接口信息。
- **show iscsi initiator** —显示iSCSI发起者信息。
- **show iscsi initiator detail** —较详细地显示iSCSI发起者信息。
- **show iscsi initiator iscsi-session detail** —显示iSCSI发起者会话的详细信息。
- **show iscsi initiator fcp-session detail** —显示iSCSI发起者FCP会话的详细信息。

- `show ips stats tcp interface gigabitethernet 2/1 detail` —显示特定GE接口的TCP统计信息。
- `show iscsi virtual-target configured` —显示在MDS9000配置的iSCSI虚拟目标。
- `show iscsi initiator configured` —显示在MDS9000配置的iSCSI创始者。
- `show ips arp interface gigabitethernet 2/1` —显示IP特定GE接口的存储设备ARP信息。
- `show scsi-target devices vsan 601` —显示特定VSAN的SCSI设备(映射对iSCSI-LUN的FC-LUNs)。
- `show int iscsi 2/1` —显示iSCSI接口。
- `show iscsi stats iscsi 2/1` —显示iSCSI统计信息。
- `show int gigabitethernet 2/1` —显示GE接口。
- `show ip route` -显示Ip route信息。
- `show ips ip route interface gigabitethernet 2/1` —显示路由表。

故障排除

本部分提供的信息可用于对配置进行故障排除。

故障排除步骤

本部分提供的信息可用于对配置进行故障排除。

这是此配置的一些相关故障排除信息：

- 从PC显示
- 从坎特伯雷Cisco MDS 9216显示
- 组织管理器和设备管理器显示

从PC显示

此屏幕截图是从PC叶猴的iSCSI显示：

要检查这些新建的磁盘，点击开始在PC的左下角。选择这些选项：

My Computer > Control Panel > Administrative Tools > Computer管理

在系统工具下，请选择设备管理器。在右侧，请点击磁盘驱动器。您应该看到此：

要管理这些磁盘，请点击开始在PC的左下角。选择这些选项：

My Computer > Control Panel > Administrative Tools > Computer管理

在存储设备下，请点击磁盘管理。从PC叶猴的显示捕获如下所示。注意Disk1和Disk2是从IBM鲨鱼，并且Disk3是希捷JBOD。

从坎特伯雷(MDS9216)显示

从坎特伯雷(MDS9216)显示

```
canterbury# show zone status ... VSAN: 601 default-zone:
deny distribute: active only Interop: Off Full Zoning
```

```

Database : Zonesets:1 Zones:1 Aliases: 0 Active Zoning
Database : Name: ZoneSet1 Zonesets:1 Zones:1 Status:
Activation completed at Wed Sep 10 09:25:45 2003 ...
canterbury# canterbury# show zone active vsan 601 zone
name Zone1 vsan 601 symbolic-nodename 10.48.69.231 *
fcid 0x020001 [pWWN 50:05:07:63:00:c8:94:4c] * fcid
0x020005 [pWWN 20:03:00:0c:30:6c:24:4c] * fcid 0x0201e8
[pWWN 21:00:00:20:37:67:f7:a2] * fcid 0x020005
[symbolic-nodename 10.48.69.149] canterbury# canterbury#
show fcns database vsan 601 VSAN 601: -----
-----
FCID TYPE pWWN (VENDOR) FC4-TYPE:FEATURE -----
-----
--- 0x020001 N 50:05:07:63:00:c8:94:4c (IBM) scsi-
fcip:target fc.. 0x020005 N 20:03:00:0c:30:6c:24:4c
(Cisco) scsi-fcp:init isc..w 0x0201e8 NL
21:00:00:20:37:67:f7:a2 (Seagate) scsi-fcp:target Total
number of entries = 3 canterbury# canterbury# show fcns
database detail vsan 601 -----
VSAN:601 FCID:0x020001 ----- port-wwn
(vendor) :50:05:07:63:00:c8:94:4c (IBM) node-wwn
:50:05:07:63:00:c0:94:4c class :2,3 node-ip-addr
:0.0.0.0 ipa :ff ff ff ff ff ff ff ff fc4-
types:fc4_features:scsi-fcp:target fcsb2-ch-cu fcsb2-cu-
ch symbolic-port-name : symbolic-node-name : port-type
:N port-ip-addr :0.0.0.0 fabric-port-wwn
:20:03:00:0c:30:6c:24:40 hard-addr :0x000000 -----
----- VSAN:601 FCID:0x020005 -----
----- port-wwn (vendor) :20:03:00:0c:30:6c:24:4c (Cisco)
node-wwn :21:00:00:0c:30:6c:24:42 class :2,3 node-ip-
addr :10.48.69.149 ipa :ff ff ff ff ff ff ff ff fc4-
types:fc4_features:scsi-fcp:init iscsi-gw symbolic-port-
name : symbolic-node-name :10.48.69.149 port-type :N
port-ip-addr :0.0.0.0 fabric-port-wwn
:20:41:00:0c:30:6c:24:40 hard-addr :0x000000 -----
----- VSAN:601 FCID:0x0201e8 -----
----- port-wwn (vendor) :21:00:00:20:37:67:f7:a2
(Seagate) node-wwn :20:00:00:20:37:67:f7:a2 class :3
node-ip-addr :0.0.0.0 ipa :ff ff ff ff ff ff ff ff fc4-
types:fc4_features:scsi-fcp:target symbolic-port-name :
symbolic-node-name : port-type :NL port-ip-addr :0.0.0.0
fabric-port-wwn :20:04:00:0c:30:6c:24:40 hard-addr
:0x000000 Total number of entries = 3 canterbury#
canterbury# show flogi database vsan 601 -----
-----
---- INTERFACE VSAN FCID PORT NAME NODE NAME -----
-----
----- fc1/3 601 0x020001 50:05:07:63:00:c8:94:4c
50:05:07:63:00:c0:94:4c fc1/4 601 0x0201e8
21:00:00:20:37:67:f7:a2 20:00:00:20:37:67:f7:a2 iscsi2/1
601 0x020005 20:03:00:0c:30:6c:24:4c
21:00:00:0c:30:6c:24:42 Total number of flogi = 3.
canterbury# canterbury# show vsan membership ... vsan
601 interfaces: fc1/3 fc1/4 ... canterbury# canterbury#
show iscsi initiator ... iSCSI Node name is 10.48.69.149
iSCSI Initiator name: iqn.1987-
05.com.cisco:02.e746244830dd.langur iSCSI alias name:
LANGUR Node WWN is 21:00:00:0c:30:6c:24:42 (dynamic)
Member of vsans: 601 Number of Virtual n_ports: 1
Virtual Port WWN is 20:03:00:0c:30:6c:24:4c (configured)
Interface iSCSI 2/1, Portal group tag: 0x80 VSAN ID 601,
FCID 0x020005 canterbury# canterbury# show iscsi
initiator detail ... iSCSI Node name is 10.48.69.149
iSCSI Initiator name: iqn.1987-

```

```
05.com.cisco:02.e746244830dd.langur iSCSI alias name:
LANGUR Node WWN is 21:00:00:0c:30:6c:24:42 (dynamic)
Member of vsans: 601 Number of Virtual n_ports: 1
Virtual Port WWN is 20:03:00:0c:30:6c:24:4c (configured)
Interface iSCSI 2/1, Portal group tag is 0x80 VSAN ID
601, FCID 0x 20005 2 FC sessions, 2 iSCSI sessions iSCSI
session details Target: shark-c8 Statistics: PDU:
Command: 45, Response: 45 Bytes: TX: 5968, RX: 0 Number
of connection: 1 TCP parameters Local 10.48.69.222:3260,
Remote 10.48.69.149:2196 Path MTU: 1500 bytes
Retransmission timeout: 300 ms Round trip time: Smoothed
219 ms, Variance: 15 Advertized window: Current: 61 KB,
Maximum: 62 KB, Scale: 0 Peer receive window: Current:
63 KB, Maximum: 63 KB, Scale: 0 Congestion window:
Current: 11 KB Target: san-fc-jbod-1 Statistics: PDU:
Command: 26, Response: 26 Bytes: TX: 3168, RX: 0 Number
of connection: 1 TCP parameters Local 10.48.69.222:3260,
Remote 10.48.69.149:3124 Path MTU: 1500 bytes
Retransmission timeout: 300 ms Round trip time: Smoothed
219 ms, Variance: 15 Advertized window: Current: 61 KB,
Maximum: 62 KB, Scale: 0 Peer receive window: Current:
63 KB, Maximum: 63 KB, Scale: 0 Congestion window:
Current: 11 KB FCP Session details Target FCID: 0x020001
(S_ID of this session: 0x020005) pWWN:
50:05:07:63:00:c8:94:4c, nWWN: 50:05:07:63:00:c0:94:4c
Session state: LOGGED_IN 1 iSCSI sessions share this FC
session Target: shark-c8 Negotiated parameters
RcvDataFieldSize 2048 our_RcvDataFieldSize 1392
MaxBurstSize 0, EMPD: FALSE Random Relative Offset:
FALSE, Sequence-in-order: Yes Statistics: PDU: Command:
0, Response: 45 Target FCID: 0x0201e8 (S_ID of this
session: 0x020005) pWWN: 21:00:00:20:37:67:f7:a2, nWWN:
20:00:00:20:37:67:f7:a2 Session state: LOGGED_IN 1 iSCSI
sessions share this FC session Target: san-fc-jbod-1
Negotiated parameters RcvDataFieldSize 1392
our_RcvDataFieldSize 1392 MaxBurstSize 0, EMPD: FALSE
Random Relative Offset: FALSE, Sequence-in-order: Yes
Statistics: PDU: Command: 0, Response: 26 canterbury#
show iscsi initiator iscsi-session detail iSCSI Node
name is 10.48.69.149 iSCSI Initiator name: iqn.1987-
05.com.cisco:02.e746244830dd.langur iSCSI alias name:
LANGUR Node WWN is 21:00:00:0c:30:6c:24:42 (dynamic)
Member of vsans: 601 Number of Virtual n_ports: 1
Virtual Port WWN is 20:03:00:0c:30:6c:24:4c (configured)
Interface iSCSI 2/1, Portal group tag is 0x80 VSAN ID
601, FCID 0x 20005 2 FC sessions, 2 iSCSI sessions iSCSI
session details Target: shark-c8 Statistics: PDU:
Command: 45, Response: 45 Bytes: TX: 5968, RX: 0 Number
of connection: 1 TCP parameters Local 10.48.69.222:3260,
Remote 10.48.69.149:2196 Path MTU: 1500 bytes
Retransmission timeout: 300 ms Round trip time: Smoothed
217 ms, Variance: 14 Advertized window: Current: 62 KB,
Maximum: 62 KB, Scale: 0 Peer receive window: Current:
63 KB, Maximum: 63 KB, Scale: 0 Congestion window:
Current: 11 KB Target: san-fc-jbod-1 Statistics: PDU:
Command: 26, Response: 26 Bytes: TX: 3168, RX: 0 Number
of connection: 1 TCP parameters Local 10.48.69.222:3260,
Remote 10.48.69.149:3124 Path MTU: 1500 bytes
Retransmission timeout: 300 ms Round trip time: Smoothed
217 ms, Variance: 14 Advertized window: Current: 61 KB,
Maximum: 62 KB, Scale: 0 Peer receive window: Current:
63 KB, Maximum: 63 KB, Scale: 0 Congestion window:
Current: 11 KB canterbury# canterbury# show iscsi
initiator fcp-session detail iSCSI Node name is
```

```
10.48.69.149 iSCSI Initiator name: iqn.1987-
05.com.cisco:02.e746244830dd.langur iSCSI alias name:
LANGUR Node WWN is 21:00:00:0c:30:6c:24:42 (dynamic)
Member of vsans: 601 Number of Virtual n_ports: 1
Virtual Port WWN is 20:03:00:0c:30:6c:24:4c (configured)
Interface iSCSI 2/1, Portal group tag is 0x80 VSAN ID
601, FCID 0x 20005 2 FC sessions, 2 iSCSI sessions FCP
Session details Target FCID: 0x020001 (S_ID of this
session: 0x020005) pWWN: 50:05:07:63:00:c8:94:4c, nWWN:
50:05:07:63:00:c0:94:4c Session state: LOGGED_IN 1 iSCSI
sessions share this FC session Target: shark-c8
Negotiated parameters RcvDataFieldSize 2048
our_RcvDataFieldSize 1392 MaxBurstSize 0, EMPD: FALSE
Random Relative Offset: FALSE, Sequence-in-order: Yes
Statistics: PDU: Command: 0, Response: 45 Target FCID:
0x0201e8 (S_ID of this session: 0x020005) pWWN:
21:00:00:20:37:67:f7:a2, nWWN: 20:00:00:20:37:67:f7:a2
Session state: LOGGED_IN 1 iSCSI sessions share this FC
session Target: san-fc-jbod-1 Negotiated parameters
RcvDataFieldSize 1392 our_RcvDataFieldSize 1392
MaxBurstSize 0, EMPD: FALSE Random Relative Offset:
FALSE, Sequence-in-order: Yes Statistics: PDU: Command:
0, Response: 26 canterbury# canterbury# show ips stats
tcp interface gigabitethernet 2/1 detail TCP Statistics
for port GigabitEthernet2/1 TCP send stats 241247690
segments, 176414627280 bytes 239428551 data, 1738205 ack
only packets 42541 control (SYN/FIN/RST), 0 probes,
38280 window updates 498 segments retransmitted, 526612
bytes 464 retransmitted while on ethernet send queue,
111295209 packets split 2505024 delayed acks sent TCP
receive stats 34418285 segments, 8983771 data packets in
sequence, 9282604852 bytes in s equence 854523 predicted
ack, 6126542 predicted data 0 bad checksum, 0
multi/broadcast, 0 bad offset 0 no memory drops, 0 short
segments 1844 duplicate bytes, 77 duplicate packets 0
partial duplicate bytes, 0 partial duplicate packets
123700 out-of-order bytes, 2235 out-of-order packets 6
packet after window, 0 bytes after window 0 packets
after close 28128679 acks, 173967225697 ack bytes, 0 ack
toomuch, 75348 duplicate acks 0 ack packets left of
snd_una, 12 non-4 byte aligned packets 18442549 window
updates, 0 window probe 88637 pcb hash miss, 2150 no
port, 14 bad SYN, 0 paws drops TCP Connection Stats 26
attempts, 42272 accepts, 42274 established 42327 closed,
40043 drops, 24 conn drops 106 drop in retransmit
timeout, 152 drop in keepalive timeout 0 drop in persist
drops, 0 connections drained TCP Miscellaneous Stats
9776335 segments timed, 9780142 rtt updated 402
retransmit timeout, 457 persist timeout 69188 keepalive
timeout, 69015 keepalive probes TCP SACK Stats 100
recovery episodes, 231520160 data packets, 330107461536
data bytes 396 data packets retransmitted, 482072 data
bytes retransmitted 13 connections closed, 46 retransmit
timeouts TCP SYN Cache Stats 42281 entries, 42272
connections completed, 3 entries timed out 0 dropped due
to overflow, 6 dropped due to RST 0 dropped due to ICMP
unreach, 0 dropped due to bucket overflow 0 abort due to
no memory, 43 duplicate SYN, 1833 no-route SYN drop 0
hash collisions, 0 retransmitted TCP Active Connections
Local Address Remote Address State Send-Q Recv-Q
10.48.69.222:3260 10.48.69.149:1026 ESTABLISH 0 0
10.48.69.222:3260 10.48.69.149:2196 ESTABLISH 0 0
10.48.69.222:3260 10.48.69.149:3124 ESTABLISH 0 0
0.0.0.0:3260 0.0.0.0:0 LISTEN 0 0 canterbury#
```



```

canterbury# show iscsi virtual-target configured target:
shark-c8 * Port WWN 50:05:07:63:00:c8:94:4c !--- The
asterisk (*) in front of the pWWN means !--- that you
have both discovery and target sessions. If !--- you do
not see this, it means that only a discovery !---
session exists. Configured node No. of advertised
interface: 1 GigabitEthernet 2/1 No. of initiators
permitted: 2 initiator 10.48.69.231/32 is permitted
initiator 10.48.69.149/32 is permitted all initiator
permit is disabled target: san-fc-jbod-1 * Port WWN
21:00:00:20:37:67:f7:a2 Configured node No. of
advertised interface: 1 GigabitEthernet 2/1 No. of
initiators permitted: 2 initiator 10.48.69.232/32 is
permitted initiator 10.48.69.149/32 is permitted all
initiator permit is disabled canterbury# canterbury#
show iscsi initiator configured ... iSCSI Node name is
10.48.69.149 Member of vsans: 601 No. of pWWN: 1 Port
WWN is 20:03:00:0c:30:6c:24:4c canterbury# canterbury#
show ips arp interface gigabitethernet 2/1 Protocol
Address Age (min) Hardware Addr Type Interface Internet
10.48.69.149 3 0008.e21e.c7bc ARPA GigabitEthernet2/1
Internet 10.48.69.200 0 0008.e21e.c7bc ARPA
GigabitEthernet2/1 Internet 10.48.69.201 4
0202.3d30.45c9 ARPA GigabitEthernet2/1 Internet
10.48.69.206 9 0005.9ba6.95ff ARPA GigabitEthernet2/1
Internet 10.48.69.209 6 0009.7c60.561f ARPA
GigabitEthernet2/1 Internet 10.48.69.229 4
0800.209e.edab ARPA GigabitEthernet2/1 Internet
10.48.69.233 0 0010.4200.7d5b ARPA GigabitEthernet2/1
Internet 10.48.69.235 0 0800.20b6.6559 ARPA
GigabitEthernet2/1 Internet 10.48.69.238 4
0030.6e1b.6f51 ARPA GigabitEthernet2/1 Internet
10.48.69.239 1 0030.6e1c.a00b ARPA GigabitEthernet2/1
Internet 10.48.69.248 7 0202.3d30.45f8 ARPA
GigabitEthernet2/1 Internet 10.48.69.252 1
0202.3d30.45fc ARPA GigabitEthernet2/1 Internet
10.10.2.28 0 0202.3d0a.021c ARPA GigabitEthernet2/1
canterbury# canterbury# show scsi-target devices vsan
601 -----
----- VSAN FCID pWWN VENDOR MODEL
REV -----
----- 601 0x020001
50:05:07:63:00:c8:94:4c IBM 2105F20 .114 601 0x0201e8
21:00:00:20:37:67:f7:a2 SEAGATE ST318203FC 0004
canterbury# canterbury# show int iscsi 2/1 iscsi2/1 is
up Hardware is GigabitEthernet Port WWN is
20:41:00:0c:30:6c:24:40 Admin port mode is iSCSI Port
mode is iSCSI Speed is 1 Gbps iSCSI initiator is
identified by name Number of iSCSI session: 3, Number of
TCP connection: 3 Configured TCP parameters Local Port
is 3260 PMTU discover is enabled, reset timeout is 3600
sec Keepalive-timeout is 60 sec Minimum-retransmit-time
is 300 ms Max-retransmissions 4 Sack is enabled Maximum
allowed bandwidth is 500000 kbps Minimum available
bandwidth is 500000 kbps Estimated round trip time is
10000 usec 5 minutes input rate 16 bits/sec, 2
bytes/sec, 0 frames/sec 5 minutes output rate 16
bits/sec, 2 bytes/sec, 0 frames/sec iSCSI statistics
Input 76856 packets, 8696216 bytes Command 13139 pdus,
Data-out 85 pdus, 84292 bytes Output 89876 packets,
6629892 bytes Response 13132 pdus (with sense 16), R2T
25 pdus Data-in 13072 pdus, 2125736 bytes canterbury#
canterbury# show iscsi stats iscsi 2/1 iscsi2/1 5
minutes input rate 8 bits/sec, 1 bytes/sec, 0 frames/sec

```

```
5 minutes output rate 8 bits/sec, 1 bytes/sec, 0
frames/sec iSCSI statistics 76857 packets input, 8696264
bytes Command 13139 pdus, Data-out 85 pdus, 84292 bytes,
0 fragments output 89877 packets, 6629940 bytes Response
13132 pdus (with sense 16), R2T 25 pdus Data-in 13072
pdus, 2125736 bytes canterbury# canterbury# show
interface gigabitethernet 2/1 GigabitEthernet2/1 is up
Hardware is GigabitEthernet, address is 0005.3000.ade6
Internet address is 10.48.69.222/26 MTU 1500 bytes Port
mode is IPS Speed is 1 Gbps Beacon is turned off Auto-
Negotiation is turned on iSCSI authentication: NONE 5
minutes input rate 464 bits/sec, 58 bytes/sec, 0
frames/sec 5 minutes output rate 64 bits/sec, 8
bytes/sec, 0 frames/sec 30544982 packets input,
9266250283 bytes 29435 multicast frames, 0 compressed 0
input errors, 0 frame, 0 overrun 0 fifo 233947842
packets output, 179379369852 bytes, 0 underruns 0 output
errors, 0 collisions, 0 fifo 0 carrier errors
canterbury# canterbury# show ip route Codes: C -
connected, S - static Gateway of last resort is
10.48.69.129 S 10.48.69.149, gigabitethernet2-1 C
6.6.6.0/30 is directly connected, gigabitethernet2-6 C
5.5.5.0/30 is directly connected, gigabitethernet2-5 C
10.48.69.192/26 is directly connected, gigabitethernet2-
1 C 10.48.69.128/26 is directly connected, mgmt0
canterbury# canterbury# show ips ip route interface
gigabitethernet 2/1 Codes: C - connected, S - static No
default gateway S 10.48.69.149/32 via 0.0.0.0,
GigabitEthernet2/1 C 10.48.69.192/26 is directly
connected, GigabitEthernet2/1 canterbury#
```

[组织管理器和设备管理器显示](#)

此部分提供从MDS组织管理器1.1(2)和设备管理器的屏幕截图1.1.(2)。

从组织管理器的拓扑图

此屏幕截图是从组织管理器的拓扑图：

选择FC-LUNs显示pWWNs、LUN您的从**设备管理器**的LUN ID和产能。

选择ip-iscsi显示从**设备管理器**的iSCSI会话。

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- [思科iSCSI软件下载\(仅限注册用户\)](#)
- [Windows 2000 系统的 iSCSI 驱动器常见问题](#)
- [iSCSI驱动：Cisco iSCSI驱动的版本注释Microsoft Windows的，驱动程序版本3.1.2](#)
- [用于 Windows 2000 的 iSCSI 驱动程序故障排除](#)
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