

Build Book

SDC A3500 CONFIG

(From Gold Disk)
Version 0.901

Draft

Build Book	1
SDC A3500 CONFIG	1
Purpose	3
STEP 1:Golden Disk Procedure	5
STEP 2:SDC Hardware preparation for E4500 and A3500	5
STEP 3: Generate SDC Build of Materials (BOM)	7
Overview	7
Hardware Configuration	7
Software Configuration	11
Packages	11
Patches	15
/etc/passwd	20
/etc/group	21
/etc/hosts.allow	21
STEP 4 : BUILDING PROCEDURE FROM GOLDEN DISK	22
Information Gathering	22
Install User's Profile	23
Install Gigabit Ethernet Driver	23
Install Raid Manager 6.22	24
Q4 Patches System/OS	24
Install and Patch StorEdge Volume Manager 2.6	27
Install and Patch Veritas filesystem.	28
Building Volumes	29
Install and Patch Sun Cluster software	54
Installation Verification	63

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Purpose

Create a process by which a standard SDC configuration may be created and deployed.

The following documentation provides a detailed process by which a standardized hardware as well as a “Gold Disk” operating and application environment may be replicated.

The Golden disk contains the start before any configuration is needed on a SDC server

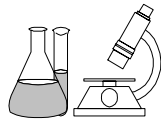
This Golden disk procedure could be used for any implementation. [E@H](#) deploys in large quantities and jumpstarts does not always seem the appropriate way to go.

The document will explain the procedure and guidelines for using the Golden disk.

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**DIAGRAM TO SUPPORT
PROCESS**

Version 1.0



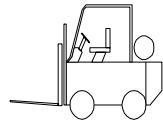
Determine RDC requirements
and build RDC BOM document

BOM - Determine
hardware and software
configurations
Work with Vendor to
determine best solution



Vendor BOM
Check against configuration

Purchase the hardware
and software - BOM



Equipment arrives

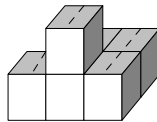


Receiving

Receieve all the hardware
and software

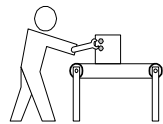


Check that all
components
has been received



Inventory

Use checklist to ensure that
all components of
hardware and software has
been recieved

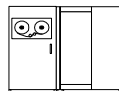


Build servers to
configuration specification

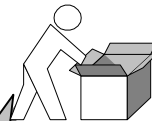
Build servers as per
specifications



Develop documentation
to support configuration
for remote site

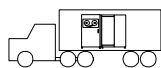


Documentation that will
include Complete diagram
Installaion process
Serial no's
Checklist



Packaging

Pack servers for shipping
to RDC



Distribution of servers via
delivery method

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The Process Steps

STEP 1:Golden Disk Procedure

With the ever-changing computer environment, it is necessary to determine the SDC requirements for **Excite@Home**.

We have built a Golden disk to accommodate and cut short the implementation time for jumpstart and loading patches.

The Golden disk will include:

Solaris 2.6 5/98 O/S

Patches for Q4

All the installation software for:

Raid Manager 6.2.2

Sun StorEdge Volume Manager 2.6

Veritas File System 3.2.2

Sun Cluster 2.2

All necessary patches for these packages

STEP 2:SDC Hardware preparation for E4500 and A3500

Unpack servers.

Rack mount.

Cabling.

Storage connections:

E4500 – D130 boot storage: Scsi

A3500FC – FC 100 hubs : Fiber

NO CONNECTION OF A3500 TO E4500 at his time.

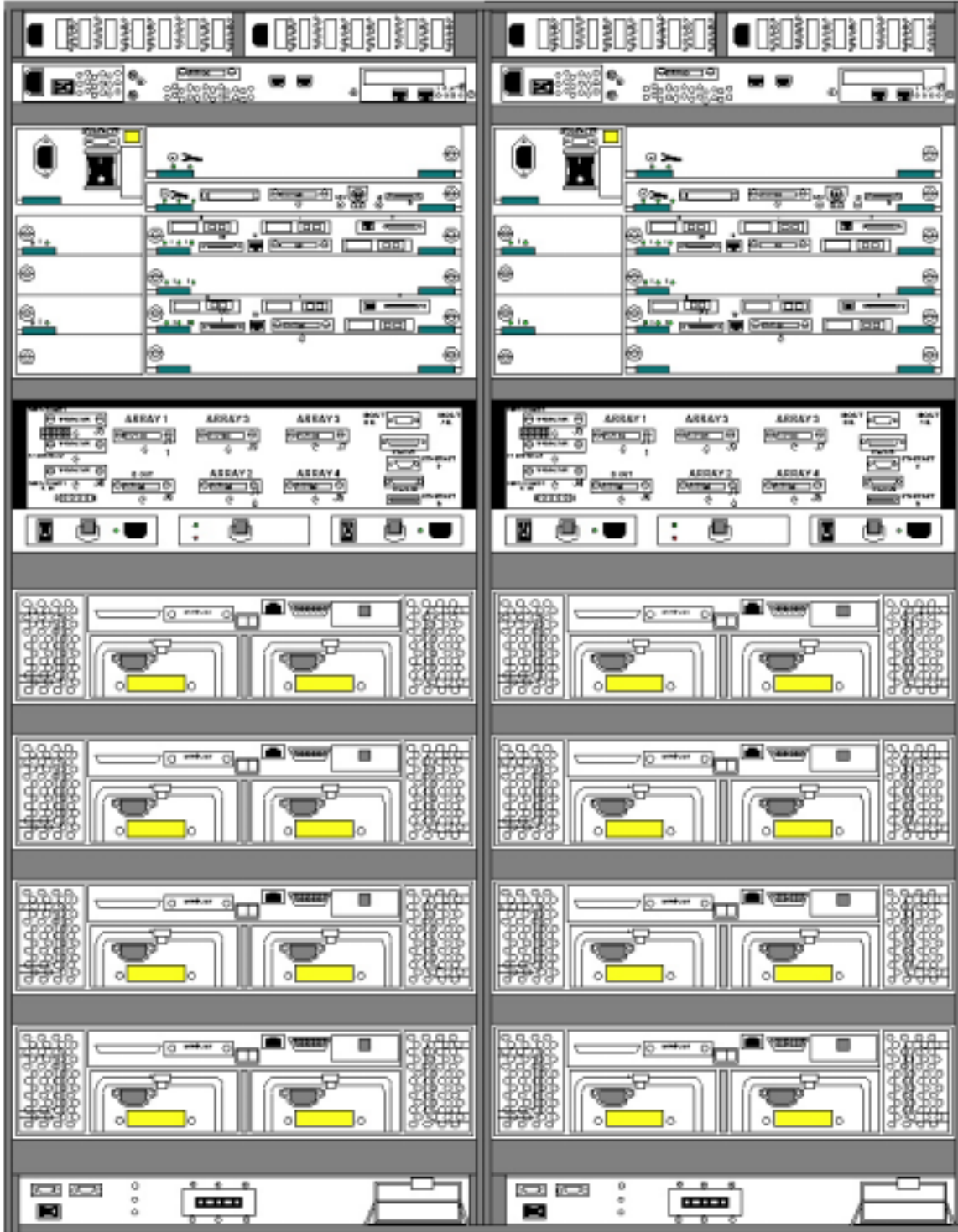


Fig 1. Standard SDC Build

Draw

STEP 3: Generate SDC Build of Materials (BOM)

Overview

A Build of Materials (BOM) document provides all components necessary for a product build. The intent of this section is to list the agreed upon components of an SDC enclosure as well as the software components required.

The following tables provide all the necessary hardware and software components, to meet the configuration requirements for the Service Data Cluster (SDC) hosts. The software configuration tables provide an enumeration of software packages for the Excite@Home SDC.

Hardware Configuration

2X Sun E4500 Server (ENT 4500 8-WAY PKG P/n 600-6559-01)

<i>Component</i>	<i>Qty.</i>	<i>Sales Part Number</i>	<i>"Top-Level" Part Number</i>	<i>Manufacturing/Supplies Part Number (Individual Parts)</i>
E4500 8-way package w/ 8x400 MHz CPU's 8x1-GB RAM options 2 SBus I/O Boards 4 CPU/Mem Boards 4 Power/Cooling Modules 32x CD-ROM	2	E4502-P88	600-6559-01	N/A
System Board package w/ 1 CPU/Mem Board 2x400MHz CPU's 1x1GB RAM option	2	X2602A-P82	N/A	N/A
1GB RAM Option	2	X7023A	595-3870	501-2654
FC-AL host adapter	8	X6730A	595-4303	540-2989
SBus Gigabit Ethernet	4	X1140A	605-1602	501-4375
E4x00 rackmount rails	2	X9659A	N/A	595-5203
Netra D130 (boot device)	2	NS-XDSKD130-54GAC	DSKD130-54GAC	N/A
2M 68-pin SCSI cable	2	X902A	595-3504	530-1885

Component	Qty.	Sales Part Number	"Top-Level" Part Number	Manufacturing/Spares Part Number (Individual Parts)
5M null Ethernet cable	2	X3837A	N/A	F530-2150

Note: The quantities listed above are per cluster. Quantities for each node are half the quantity listed.

Note: The manufacturing/spares part number denotes a single part. For example, the 1GB RAM option contains 8 DIMMs. The part number for an individual DIMM is 501-2654. The "top-level" part number, 595-3870, consists of 8 DIMMs.

2X Accessory 4500

Component	Description	Quantity	Special Notes
RJ 45	Ethernet Cable	2	
Fiber HBA	501-5622	4	SBus
Fiber Cable		5	15 Meter
220 Power Cable		2	
GBIC Short Wave	370-2303-03	4	IBM
Gigabit Ethernet	605-1602-01	1	

2X Sun A3500 StorEdge (Installed in Rack) (p/n:595-5163-01)

Component	Description	Quantity	Special Notes
72" Cabinet		1	
D 1000	Disk Array	5	
220 Power Supply		2	
Disk Drive	18 GB 10K/1"	60	

2X Sun A3500FC-Assembly (p/n 380-0296)

Component	Description	Quantity	Special Notes
A3500FC	Fiber Controller	2	
SCache Memory	128 M	1	
Processor Memory	16 M	1	
Power Supply		2	
Fan		2	
Battery		1	

2X D130 Netra (Coyote p/n 600-6383-02)

Component	Description	Quantity	Special Notes
*SCSI Cable	SCSI 530-2383-01	1	Ordered Separately
18 GB 10K Drive	Disk Drives	2	
220 Power Cable		4	

2X Accessory - Fiber

Component	Description	Quantity	Special Notes
FC100	Fiber Channel Hub	2	
Dual Hub Rack mount kit		1	
Fiber cable	SC/SC	2	

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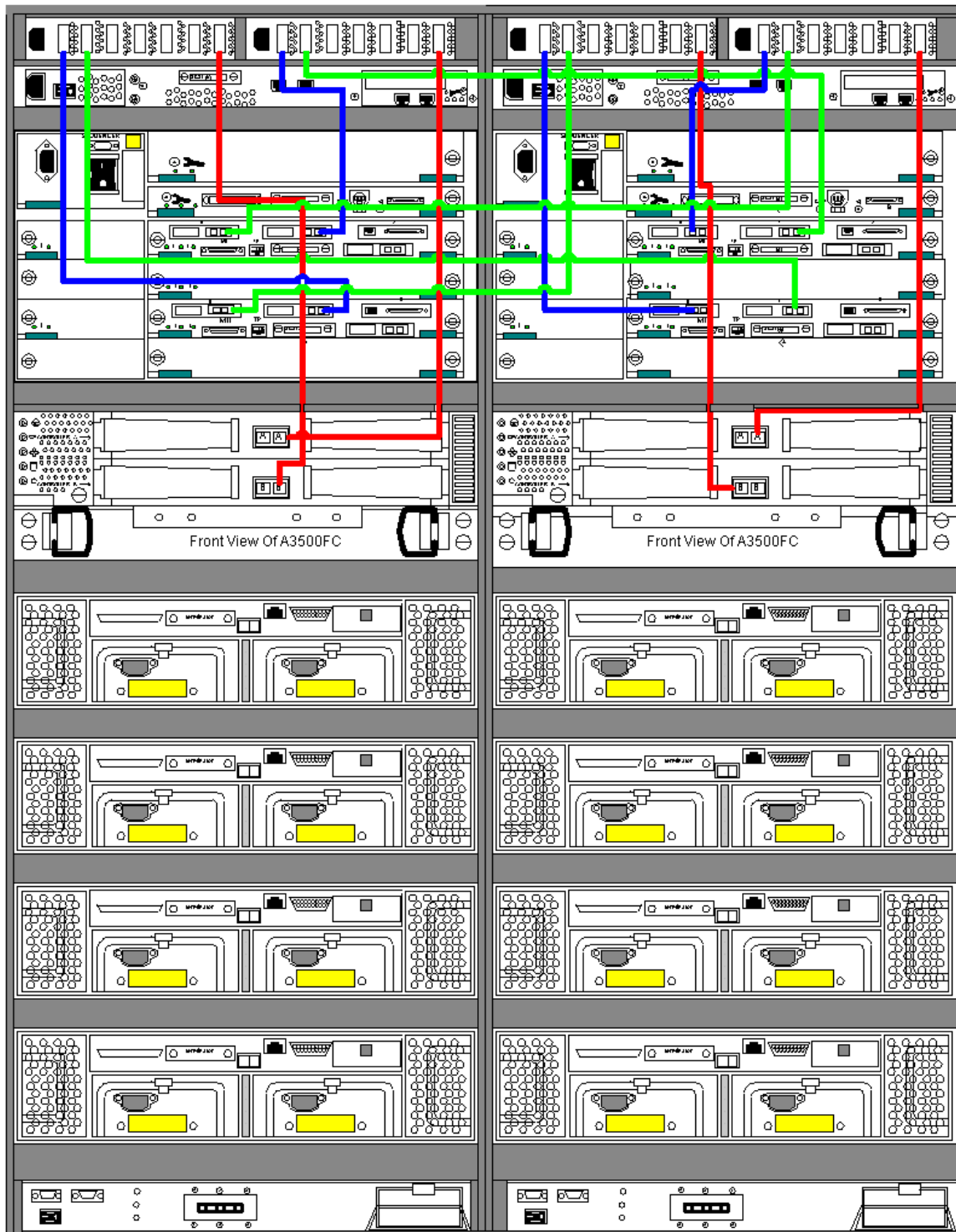


FIG -2 : STANDARD SDC Fiber Cable Connection Diagram.

Software Configuration

Packages

Gold Disk for the SDC is installed with Following Packages in it.

Athmsvc	ATHMbind	Bind
Athmcluster	ATHMdsagt	HA Data Service: Agents (SC 2.2)
Athmcluster	ATHMdsbin	HA Data Service: Binary (SC 2.2)
Athmcluster	ATHMdsdhc	HA Data Service: DHCP (SC 2.2)
Athmcluster	ATHMdschar	HA Data Service: Harvest (SC 2.2)
Athmcluster	ATHMdsinm	HA Data Service: InterMail (SC 2.2)
Athmcluster	ATHMdsipa	HA Data Service: IPaddress (SC 2.2)
Athmcluster	ATHMdslog	HA Data Service: Syslog (SC 2.2)
Athmcluster	ATHMdsmon	HA Data Service: Monitor (SC 2.2)
Athmcluster	ATHMdsmpv	HA Data Service: Mprov (SC 2.2)
Athmcluster	ATHMdsnew	HA Data Service: News (SC 2.2)
Athmbase	ATHMfind	find utilities (Sol 2.6)
Athmsec	ATHMfixmd	Fixmodes version 2.1
Athmbase	ATHMgzip	gzip utilities (Sol 2.6)
Athmsec	ATHMklaxn	Klaxon version 5.6
Athmbase	ATHMless	less tuilities (Sol 2.6)
Athmbase	ATHMlocal	ATHM localize utility (Sol 2.5.1 +)
athmbase	ATHMlsof	lsof version 4.40 (Sol 2.6)
athmbase	ATHMmon	Monitor version
athmbase	ATHMperl5	Perl version 5.005_02
athmbase	ATHMpiden	PIDENT server version 2.8.3 (Sol 2.6)
athmsec	ATHMpriv	Priv (Sol 2.6)
athmsec	ATHMraudt	Raudit version 1.1 (Sol 2.6)
athmbase	ATHMrpcbi	RPCBIND version 1.1
athmsec	ATHMssh	Secure Shell 1.2.26
athmsec	ATHMswcth	System Watcher (swatch 2.2)
athmsec	ATHMtcpd	TCP Wrapper version 7.6 (Sol 2.6)
athmbase	ATHMtcpdm	Tcpdump version 3.4a6 (Sol 2.6)
system	ATHMtlc	Tivoli lcf 3.6.2
athmbase	ATHMtop	Top version 3.5b8
athmbase	ATHMtrcte	Traceroute
athmsec	ATHMtripw	Tripwire
athmbase	ATHMvsar	VSAR version 4.8
athmbase	ATHMxntpd	NTP version 5.93

system	SUNWab2m	Solaris Documentation Server Lookup
system	SUNWaccr	System Accounting, (Root)
system	SUNWaccu	System Accounting, (Usr)
system	SUNWadmap	System administration applications
system	SUNWadmc	System administration core libraries
system	SUNWadmfw	System & Network Administration Framework
system	SUNWadmr	System & Network Administration Root
system	SUNWarc	Archive Libraries
system	SUNWast	Automated Security Enhancement Tools
system	SUNWatfsr	AutoFS, (Root)
system	SUNWatfsu	AutoFS, (Usr)
system	SUNWbcp	SunOS 4.x Binary Compatibility
system	SUNWcar	Core Architecture, (Root)
system	SUNWcg6	GX (cg6) Device Driver
system	SUNWcpr	Suspend, Resume package
system	SUNWcsd	Core Solaris Devices
system	SUNWcsr	Core Solaris, (Root)
system	SUNWcsu	Core Solaris, (Usr)
system	SUNWdfb	Dumb Frame Buffer Device Drivers
system	SUNWdoc	Documentation Tools
system	SUNWdtcor	Solaris Desktop /usr/dt filesystem anchor
system	SUNWenise	Base Partial Locales
system	SUNWesu	Extended System Utilities
system	SUNWeuse	European Partial Locales
system	SUNWfns	Federated Naming System
system	SUNWged	Sun Gigabit Ethernet Adapter Driver
system	SUNWgedm	Sun Gigabit Ethernet Adapter Driver Man Pages
system	SUNWgedu	Sun Gigabit Ethernet Adapter Driver Headers
system	SUNWglmr	Symbios 875/876 SCSI device driver, (Root)
system	SUNWhmd	SunSwift SBus Adapter Drivers
system	SUNWhmdu	SunSwift SBus Adapter Headers
system	SUNWide	IDE device drivers
system	SUNWidecr	IDE device drivers
system	SUNWider	IDE Device Driver, (Root)
system	SUNWinst	Install Software
system	SUNWipc	Interprocess Communications
system	SUNWislcc	XSH4 conversion for Eastern European locales
system	SUNWisolc	XSH4 conversion for ISO Latin character sets
system	SUNWjvjit	Java JIT compiler

system	SUNWjvrt	JavaVM run time environment
system	SUNWkey	Keyboard configuration tables
system	SUNWkvm	Core Architecture, (Kvm)
system	SUNWlibC	SPARCompilers Bundled libC
system	SUNWlibCf	SunSoft WorkShop Bundled libC (cfront version)
system	SUNWlibm	Sun WorkShop Bundled libm
system	SUNWlibms	Sun WorkShop Bundled shared libm
system	SUNWloc	System Localization
system	SUNWluxal	Sun Enterprise Network Array social Device Driver
system	SUNWluxdv	Sun Enterprise Network Array sf Device Driver
system	SUNWluxop	Sun Enterprise Network Array firmware and utilities
system	SUNWman	On-Line Manual Pages
system	SUNWmfrun	Motif RunTime Kit
system	SUNWmibii	Solstice Enterprise Agent SNMP daemon
system	SUNWnistr	Network Information System, (Root)
system	SUNWnisu	Network Information System, (Usr)
system	SUNWolaud	OPEN LOOK Audio applications
system	SUNWolbk	OpenWindows online handbooks
system	SUNWoldcv	OPEN LOOK document and help viewer applications
system	SUNWoldst	OPEN LOOK deskset tools
system	SUNWoldte	OPEN LOOK Desktop Environment
system	SUNWolimt	OPEN LOOK imagetool
system	SUNWolinc	OPEN LOOK include files
system	SUNWolrte	OPEN LOOK toolkits runtime environment
system	SUNWos86u	Platform Support, OS Functionality (Usr)
system	SUNWowbcp	OpenWindows binary compatibility
system	SUNWowrqd	OpenWindows required core package
system	SUNWpcelx	3COM EtherLink III PCMCIA Ethernet Driver
system	SUNWpci	PCI Simba device drivers
system	SUNWpcmci	PCMCIA Card Services, (Root)
system	SUNWpcmcu	PCMCIA Card Services, (Usr)
system	SUNWpcmem	PCMCIA memory card driver
system	SUNWpcser	PCMCIA serial card driver
system	SUNWpd	PCI Drivers
system	SUNWpdu	PCI Drivers Headers
system	SUNWploc	Partial Locales
system	SUNWplow	OpenWindows enabling for Partial Locales

system	SUNWpmr	Power Management config file and rc script
system	SUNWpmu	Power Management binaries
system	SUNWpsdpr	PCMCIA ATA card driver
system	SUNWpwb	Power Button Driver
system	SUNWqfed	Sun Quad FastEthernet Adapter Driver
system	SUNWrdr	On-Line Open Issues ReadMe
system	SUNWsacom	Solstice Enterprise Agent files for root file system
system	SUNWsadmi	Solstice Enterprise Agent Desktop Management Interface
system	SUNWsasnm	Solstice Enterprise Agent Simple Network Management Protocol
system	SUNWscbcp	SPARCcompilers Binary Compatibility Libraries
system	SUNWscplp	SunSoft Print - Source Compatibility, (Usr)
system	SUNWscpr	Source Compatibility, (Root)
system	SUNWscpu	Source Compatibility, (Usr)
system	SUNWses	SCSI Enclosure Services Device Driver
system	SUNWsior	SuperIO 307 (plug-n-play) device drivers, (Root)
system	SUNWsolnm	Solaris Naming Enabler
system	SUNWspot	Solaris Bundled tools
system	SUNWsra	Source Compatibility Archive Libraries
system	SUNWsregu	Solaris User Registration
system	SUNWssadv	SPARCstorage Array Drivers
system	SUNWssaop	SPARCstorage Array Utility
system	SUNWsutl	Static Utilities
system	SUNWswmt	Patch Utilities
system	SUNWter	Terminal Information
system	SUNWtltk	ToolTalk runtime
system	SUNWtnfc	TNF Core Components
system	SUNWtnfd	TNF Developer Components
system	SUNWtoo	Programming Tools
system	SUNWvolg	Volume Management Graphical User Interface
system	SUNWvolr	Volume Management, (Root)
system	SUNWvolu	Volume Management, (Usr)
system	SUNWvplr	SMCC sun4u new platform links
system	SUNWvplu	SMCC sun4u new usr/platform links
system	SUNWvplxw	Sun4u-platform specific X server supplementary links
system	SUNWxcu4	XCU4 Utilities
system	SUNWxfb	Elite3D/FFB (Creator) Common Driver Routines

application	SUNWxgldg	XGL Generic Loadable Libraries
application	SUNWxgler	XGL English Localization
application	SUNWxglft	XGL Stroke Fonts
application	SUNWxglrt	XGL Runtime Environment
application	SUNWxildh	XIL Loadable Pipeline Libraries
application	SUNWxilow	XIL Deskset Loadable Pipeline Libraries
application	SUNWxilrl	XIL Runtime Environment
application	SUNWxilvl	VIS/XIL Support
system	SUNWxwacx	AccessX client program
system	SUNWxwcft	X Window System common (not required) fonts
system	SUNWxwdv	X Windows System Window Drivers
system	SUNWxwfnt	X Window System platform required fonts
system	SUNWxwfs	Font server
system	SUNWxwice	ICE components
system	SUNWxwmod	OpenWindows kernel modules
system	SUNWxwopt	nonessential MIT core clients and server extensions
system	SUNWxwplt	X Window System platform software
system	SUNWxwpsr	Sun4u-platform specific X server auxiliary filter modules
system	SUNWxwrtl	X Window System & Graphics Runtime Library Links in /usr/lib

Patches

Gold is OS image is patched with following patches in it.

Patch-ID	Obsoletes	Requires	Packages effected
107497-01			SUNWvplu, SUNWvplr, SUNWvplw

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106183-03		105181-05, 105222-02, 105223-02, 105492-02, 105600-02, 105604-03, 105651-03, 105742-02, 105795-02, 105836-02, 106168-01, 106169-01, 106170-01, 106171-01, 106172-01, 106173-01	SUNWkvm, SUNWcsu, SUNWarc
105642-03			SUNWkvm
105181-16	105214-01, 105636-01, 105776-01, 106031-02, 106308-01		SUNWkvm, SUNWcsu, SUNWcsr, SUNWcar
105181-17	105214-01, 105636-01, 105776-01, 106031-02, 106308-01		SUNWkvm, SUNWcsu, SUNWcsr, SUNWcar
105181-19	105214-01, 105636-01, 105776-01, 106031-02, 106308-01, 106048-07		SUNWkvm, SUNWcsu, SUNWcsr, SUNWcar
105401-09	105524-01		SUNWcsu, SUNWcsr, SUNWarc, SUNWnisu
106141-01			SUNWcsu
106075-01			SUNWcsu
106049-01			SUNWcsu
106044-01			SUNWcsu
106035-01			SUNWcsu
106033-01			SUNWcsu
106031-02			SUNWcsu, SUNWcar
105990-01			SUNWcsu, SUNWxcu4
105988-01			SUNWcsu
105953-01			SUNWcsu
105867-01			SUNWcsu
105792-02			SUNWcsu
105757-01			SUNWcsu
105755-03			SUNWcsu
105746-01			SUNWcsu
105736-01			SUNWcsu

105724-01			SUNWcsu
105722-01			SUNWcsu
105718-02			SUNWcsu
105705-02			SUNWcsu
105693-03			SUNWcsu, SUNWcsr
105686-02			SUNWcsu
105621-02			SUNWcsu, SUNWarc
105615-03			SUNWcsu
105568-05			SUNWcsu
105562-01			SUNWcsu, SUNWnisu
105518-01			SUNWcsu
105516-01			SUNWcsu
105490-04			SUNWcsu, SUNWcsr, SUNWarc, SUNWtoo, SUNWxcu4
105405-01			SUNWcsu, SUNWarc
105397-02			SUNWcsu
105393-02			SUNWcsu
105216-03		105401-07	SUNWcsu
105210-05			SUNWcsu, SUNWarc
105210-27			SUNWcsu, SUNWarc
105621-19	105393-11, 105686-02, 105845-01, 106064-01, 106075-01, 106033-01		SUNWcsu, SUNWcsr, SUNWarc, SUNWnisu
105615-07			SUNWcsu
106271-06			SUNWcsu, SUNWnisu
106439-06			SUNWcsu
105667-02			SUNWcsu
105722-04	105724-01		SUNWcsu
106522-03			SUNWcsu
106569-01			SUNWcsu, SUNWarc
106592-02			SUNWcsu
106625-05	105572-11		SUNWcsu, SUNWcsr, SUNWarc
106834-01			SUNWcsu, SUNWxcu4
107758-01			SUNWcsu
107774-01			SUNWcsu
105181-05	105636-01, 105776-01		SUNWcsr, SUNWcar
106173-02		105181-05	SUNWcsr
106171-01		105181-05	SUNWcsr
106170-02		105181-05	SUNWcsr
106169-02		105181-05	SUNWcsr, SUNWcar
106168-02		105181-05	SUNWcsr, SUNWcar

105836-02		105181-05	SUNWcsr
105742-03		105181-05	SUNWcsr
105604-05		105181-05	SUNWcsr, SUNWcar
105600-05		105181-05	SUNWcsr
105222-03		105181-05	SUNWcsr, SUNWcar
105651-06		105181-05, 105222-02, 105223-02, 105492-02, 105600-02, 105604-03, 105742-02, 105795-02, 105836-02, 106168-01, 106169-01, 106170-01, 106171-01, 106172-01, 106173-01	SUNWcsr, SUNWcar
105847-01			SUNWcsr
105845-01			SUNWcsr
105797-02			SUNWcsr
105786-03			SUNWcsr
105780-01			SUNWcsr
105778-01			SUNWcsr
105720-03			SUNWcsr
105572-03			SUNWcsr
105564-02			SUNWcsr
105529-01			SUNWcsr
105528-01			SUNWcsr
105486-02			SUNWcsr
105379-03			SUNWcsr
105214-01			SUNWcsr
106323-01			SUNWcsr
105654-03			SUNWcsr
105924-03	105610-04		SUNWcsr, SUNWpd
105604-09		105181-05	SUNWcsr, SUNWcar
105786-11			SUNWcsr
105720-11			SUNWcsr
105600-11		105181-05	SUNWcsr
105529-08			SUNWcsr
105780-04			SUNWcsr
106216-01			SUNWcar
106495-01			SUNWesu, SUNWtoo
105802-03			SUNWtltk

105802-11	106480-01		SUNWtltk
106084-01			SUNWxildh
105633-05			SUNWxwfnt, SUNWxwplt, SUNWxwcft
105633-46			SUNWxwfnt, SUNWxwplt, SUNWxwcft
105618-01			SUNWxwplt
105400-02			SUNWxwplt
105284-31			SUNWmfrun
105464-01			SUNWxwopt
106415-03			SUNWxwopt
105416-01			SUNWaccu
107492-01			SUNWaccu
106193-01			SUNWadmap
105800-01			SUNWadmap
106317-01			SUNWadmc
105363-05			SUNWxfb
105363-16			SUNWxfb
106123-01			SUNWdoc
106123-04			SUNWdoc
106262-01			SUNWman
106261-01			SUNWman
106260-01			SUNWman
106219-01			SUNWman
105390-02			SUNWman
105472-02			SUNWatfsu
106648-01			SUNWolrte
106649-01			SUNWolrte
106138-01			SUNWoldst
105497-01			SUNWoldst
105377-03			SUNWbcp
105492-02		105181-05	SUNWcg6
105798-03			SUNWcpr
105743-01			SUNWfns
106172-02		105181-05	SUNWhmd
105795-03		105181-05	SUNWhmd, SUNWhmdu
105795-05		105181-05	SUNWhmd, SUNWhmdu
105375-07			SUNWluxal, SUNWluxdv, SUNWluxop
106064-01			SUNWnisu
105552-02			SUNWnisu
105403-01			SUNWnisu
105741-02			SUNWpd
105580-05			SUNWpd, SUNWpdu
105741-06			SUNWpd

105580-14			SUNWpd, SUNWpdu
105637-01			SUNWpmu
105357-01			SUNWses
106029-01			SUNWsprout
105223-04	105181-05		SUNWssadv, SUNWssaop
105356-05			SUNWssadv
105926-01			SUNWsutl
107991-01			SUNWsutl
106125-02			SUNWswmt
106125-09			SUNWswmt
105426-01			SUNWtnfc
105407-01			SUNWvolu
107618-01			SUNWvolu
105361-03			SUNWxilvl
106764-03			SUNWged

Important files in gold disk have entries as listed below.

/etc/passwd

Username	Uid	Gid	Name	Home Directory	Shell
root	0	0	Super-User	/	/sbin/sh
daemon	1	1		/	/bin/false
bin	2	2		/usr/bin	/bin/false
sys	3	3		/	/bin/false
adm	4	4	Admin	/var/adm	/bin/false
listen	37	4	Network Admin	/usr/net/nls	/bin/false
mta	40	420	MTA Mail Admin	/export/home/mta	/bin/csh
nobody	60001	60001	uid no body	/	/bin/false
noaccess	60002	60002	uid no access	/	/bin/false
siteadm	101	250	Netscape Servers User	/export/home/siteadm	/bin/csh
oracle	250	250	Oracle User	/opt/agents	/bin/sh
News	401	401	News	/export/home/news	/bin/csh
User	1000	20	Generic User	/export/home/user	/bin/sh
tivoli	263	263	Tivoli	/	/bin/false
Sec	264	264	SEC	/	/bin/false
nsadmin	420	420	Netscape Administrator	/export/home/nsadmin	/bin/csh
Ldap	389	389	ldap user	/export/home/ldap	/bin/csh
Netx	2003	2003	Netexpert User	/export/home/netx	/bin/sh
msotool	106	106	MSO Tools	/export/home/msotool	/bin/sh

mprov	221	221	Modem Provisioning	/export/home/mprov	/bin/sh
httpd	9010	420	Web Server User	/export/home/httpd	/bin/csh
imail	41	41	Software.com	/export/home/imail	/bin/csh
ioracle	255	250	Oracle User	/export/home/ioracle	/bin/sh

/etc/group

Group Name	Gid	Users
Root	0	root
Other	1	
Bin	2	root
Sys	3	root
Adm	4	root
Uucp	5	root
Mail	6	root
Tty	7	root, tty
lp	8	root
nuucp	9	root
staff	10	
daemon	12	root, daemon
sysadmin	14	root
nobody	60001	
noaccess	60002	
nogroup	65534	
servers	90	
dba	250	siteadm, oracle, ioracle, imail
news	401	siteadm
nsapps	420	nsadmin, mta, ldap
user	20	user
tivoli	263	tivoli
sec	264	sec
netx	2003	netx
msotool	106	msotool
mprov	221	mprov
imail	41	imail
ldap	389	ldap

/etc/hosts.allow

Service	Allowed Subnets
---------	-----------------

in.identd	24.0.11., 24.0.10.30, 24.0.10.29
rpc.rstatd	ALL@24.0.8. 127.0.0.1
rpcbind	24.0.8.0/255.255.255.0, 127.0.0.1/255.255.255.254
rpcbind	204.152.64.0/255.255.255.0, 204.152.65.0/255.255.255.0
rpcbind	172.17.1.0/255.255.255.0
in.rshd	204.152.65.0/255.255.255.240, 204.152.65.16/255.255.255.240,
in.rshd	172., 204.152.65.32/255.255.255.240
sshd	24.0.11., 24.0.30.10, 24.0.10.17
sshd	24.0.10.70, 24.0.10.71, 24.0.10.57, 24.0.10.58, 24.0.30.130
sshd	24.0.10.10, 172.17.1.249
sshd	24.0.17. , 24.0.16.
sshd	172.17.2.
sshd	24.0.

Gold disk also contain the directory /export/home/user/deployteamwork/install. This directory and subdirectory contain packages and script that are required to deploy server. In next step you will deal with script that are mostly in this directory.

STEP 4 : BUILDING PROCEDURE FROM GOLDEN DISK

Note: Please follow this procedure on both machines (ha1 and ha2), unless it is mentioned to perform following step on one machine only.

Information Gathering.

Before we login and start configuring the server we need to gather information to configure TCP/IP stack in system. For that we need the following information for machine.

1. Hostname.
2. IP address of server.
3. Subnet Mask of server.
4. Default Gateway for Server.
5. DNS domain name.

Once you have all the above information follow the steps listed below.

```
#vi /etc/hosts
```

Make entries for the hostname and corresponding IP address in this file.

```
#vi /etc/nodename  
Make entry of hostname in this file.
```

```
#vi /etc/hostname.ge0  
Make entry of hostname in this file.
```

```
#vi /etc/defaultrouter  
Put default router IP address in this file.
```

```
#vi /etc/netmasks  
Put IP address and subnet mask info in this file.
```

```
#vi /etc/resolv.conf  
Put entry of dns domain name in this file.
```

After modifying these files, reboot system.

```
#reboot
```

Install User's Profile

Install User's profile and make ready system for installation

```
#cd /export/home/user/deployteamwork/install/server/shlib-files/  
#./install  
#cd /export/home/user/deployteamwork/install/server/user-accts/  
#./install-profiles.sh  
#cd /export/home/user/deployteamwork/  
#cd install/server/user-acct/sol2.6-config/etc-system/  
#./enable-priority-paging  
#./increase-filedescriptor-limits
```

Install Gigabit Ethernet Driver

Now put the CD named "Sun GigabitEthernet 2.0" in the CDROM of machine, and mount it on /mnt directory.

```
#mount -F hsfs /dev/dsk/c0t6d0s0 /mnt  
#cd /mnt/Sol2.6  
#pkgadd -d
```

Install all the following packages to the system, and reboot the system.

System	SUNWged	Sun Gigabit Ethernet Adapter Driver
System	SUNWgedm	Sun Gigabit Ethernet Adapter Driver Man Pages
System	SUNWgedu	Sun Gigabit Ethernet Adapter Driver Headers

System	SUNWvtsge	SunVTS unbundled gemtest
--------	-----------	--------------------------

```
#reboot -- -r
```

After booting system make sure that the ge0 interface come up with the correct IP address on it with the following command.

```
#ifconfig -au
```

Install Raid Manager 6.22

```
#cd /export/home/user/deployteamwork/raid_manager_6_22/Product
#pkgadd -d .
```

Install all the following packages to the system, in sequence.

System	SUNWosafw	Open Storage Array Firmware
System	SUNWosar	Open Storage Array (Root)
System	SUNWosau	Open Storage Array (Usr)
System	SUNWosamn	Open Storage Array Man Pages

add32lun.sh script modifies /etc/osa/rmparams, kernel/drv/sd.conf and /kernel/drv/rdrive.conf file so that raid manager software will able to support 32 luns.

```
#./add32lun.sh
```

Before rebooting system look into /etc/raid/rmparams file and make sure the variable 'Rdac_HotAddDisabled' is set to false.

```
#reboot -- -r
```

Q4 Patches System/OS

Install system/os q4 patches

```
#cd export/home/user/deployteamwork/install/patches/q4_productpatchlist
#./unpack_to_tmp solaris2.6_q4 obp_q4 other_q4 gigabit_q4
# cd /tmp/q4-update/patches/solaris2.6_q4/2.6_Recommended
#./install_cluster
```

This install_cluster script will try to install following patches to the system.

105181-23	105210-32	105216-04	105284-37
105338-25	105356-16	105357-04	105375-25
105379-06	105401-28	105403-03	105407-01
105464-02	105472-07	105529-09	105552-03
105558-04	105562-03	105566-08	105568-18

105580-15	105591-09	105600-19	105615-08
105621-24	105633-48	105642-08	105665-03
105667-02	105669-10	105703-23	105720-12
105722-05	105741-07	105780-05	105786-13
105800-06	105802-12	105837-03	105926-01
106027-09	106040-14	106049-01	106112-06
106123-04	106125-10	106172-04	106193-05
106222-01	106226-01	106235-06	106242-02
106257-05	106271-06	106301-01	106415-03
106437-03	106439-06	106448-01	106468-02
106495-01	106522-04	106569-01	106592-03
106625-08	106639-05	106646-03	106648-01
106649-01	106650-04	106828-01	106834-01
106882-02	106894-01	107336-01	107434-01
107565-02	107618-01	107733-08	107758-01
107766-01	107774-01	107991-01	108199-01
108201-01	108307-02	108333-02	108346-03
108468-02	108492-01	108499-01	108660-01
108804-01	108890-01	108893-01	108895-01
109266-01	109339-01	109388-01	

```
#cd /tmp/q4-update/patches/other_q4
#chmod u+x install_cluster
#./install_cluster
```

This install_cluster script will try to install the following patches to the system.

105568-18	105795-08	107733-09	108796-01
105778-01	106141-01	108794-02	108834-03
109417-01			

There is a flash Upgrade procedure for patch number 109400-03. Please read README file in directory before performing this procedure.

```
#cd /tmp/q4-update/patches/other_q4/109400-03
#./flash-upgrade
```

There are two gigabit ethernet patches that can be install by following procedure.

```
#cd /tmp/q4-update/patches/gigabit_q4
#patchadd 106745-06
#patchadd 106764-06
```

This flash-update-26 script will upgrade flash prom of the system. Read the readme file in the directory before updating flash.

```
#cd /tmp/q4-update/patches/obp_q4/103346-26
#./flash-update-26
```

Note: please make sure that all the patches listed in this document are getting installed in server. Reinstall those patches again, which are not failing with code 2 or 8. You can ignore those patches that are failing due to code 2 or 8.

After Finishing installation of this all Packages and Patches power cycle system.

```
#sync
#halt
ok power-off
```

Then wait for five minutes and manually power on machine by turning off and on power key.

LUN creation.

After the server comes up verify that both the A3500FC are detected by system, with 'healthck -a' command. Also verify that only drive 4,13 and 5,13 are configured as hot spare, otherwise lun creation process may fail and particular lun may fail to create.

```
#healthck -a
#drivutil -d <raid module>
```

You can find raid module name from the output of command healthck -a.

Following is a procedure to create luns on A3500FC system. This procedure must be followed on **only one machine**. (ha1 is preferred).

```
#raidutil -c c1t5d0 -D all
#raidutil -c c2t5d0 -D all
#raidutil -c c3t4d0 -D all
#raidutil -c c4t4d0 -D all
#
#cd /export/home/user/deployteamwork
#cd install/storage/rm6-tools/files/rm6-lun-config
#./create-rm6-luns V2.7 00 01 02 03 04 05 06 07 08 09
#./create-rm6-luns V2.7 10 11 12 13 14 15 16 17 18 19
#./create-rm6-luns V2.7 20 21 22 23 24 25 26 27 28 29
#./create-rm6-luns V2.7 30 31
```

Make sure that commands `lad` and `format` show all LUN successfully without any error.

```
#lad
```

Output of the command should be as follows.

```
#lad
c1t5d0 1T94801368 LUNS: 0 1 4 5 8 9 12 13 16 17 20 21 24 25 28 29
c2t5d0 1T94700339 LUNS: 0 1 4 5 8 9 12 13 16 17 20 21 24 25 28 29
c3t4d2 1T94801374 LUNS: 2 3 6 7 10 11 14 15 18 19 22 23 26 27 30 31
c4t4d2 1T94801264 LUNS: 2 3 6 7 10 11 14 15 18 19 22 23 26 27 30 31
```

```
#format
```

Follow this procedure on **both servers**.

```
#cd /export/home/user/deployteamwork/install/storage/rm6-tools
#./install-rm6-tools
#cd /usr/local/lib/rm6-tools/rdac-config
#./install-rm6-config.sh
```

After all luns are created and configured we need that it will detect proper by system. To make sure that will happen we will clear device tree and do reconfigure reboot on system.

```
#rm /dev/dsk/c1* /dev/rdisk/c1*
#rm /dev/dsk/c2* /dev/rdisk/c2*
#rm /dev/dsk/c3* /dev/rdisk/c3*
#rm /dev/dsk/c4* /dev/rdisk/c4*
#rm -rf /dev/osa
#rm -rf /devices/pseudo/rdnexus*
#cp -p /etc/path_to_inst /etc/path_to_inst.bak
#grep -vw rdriver /etc/path_to_inst.bak > /etc/path_to_inst
Remove all the entries that contain word 'rdriver'.
#reboot -- -r
```

After system comes up verify that all luns are detected correctly by both commands '`lad`' and '`format`'.

At this stage System has all luns. Now it is time to install volume manager above it. Install StorEdge Volume Manager 2.6

Install and Patch StorEdge Volume Manager 2.6

```
#cd /export/home/user/deployteamwork/StorEdge-VM-2.6
#pkgadd -d .
```

Do not install all packages. Install only following packages from the list.

System	SUNWvmdev	Sun StorEdge Volume Manager, Header and Library Files
System	SUNWvmmman	Sun StorEdge Volume Manager, Manual Pages
System	SUNWvxva	Sun StorEdge Volume Manager, Visual Administrator
System	SUNWvxvm	Sun StorEdge Volume Manager

Install q4 patch for Sun StorEdge Volume Manager.

```
#cd export/home/user/deployteamwork/install/patches/q4_productpatchlist
#./unpack-to-tmp vxvm_q4
#cd /tmp/q4-update/patches/vxvm_q4
#patchadd 106606-04
```

Install and Patch Veritas filesystem.

```
#cd /export/home/user/deployteamwork/install/patches
#./unpack-to-tmp SUNWvxvm VRTSvxfs vts
#cd /tmp/q1-update/patches/VRTSvxfs
#pkgadd -d VRTSvxfs-3.3.2.pkg
```

system	VRTSvxfs	VERITAS File System
--------	----------	---------------------

```
#cd export/home/user/deployteamwork/install/patches/q4_productpatchlist
#./unpack-to-tmp vxfs_q4
#cd /tmp/q4-update/patches/vxfs_q4
#chmod 700 install_cluster
#./install_cluster
```

Above command will install 108474-02 patch

Install veritas file system licenses.

```
#echo 3705 7155 8027 2130 0984 020 | vxserial -c
#echo 4045 4191 3728 2295 9261 665 | vxserial -c
#echo 9993 4986 4217 7665 5462 147 | vxserial -c
```

Disable DMP.

```
#cd /kernel/drv
#rm vxdmp
```

```
#rm -rf /dev/vx/dmp /dev/vx/rdmp
#ln -s /dev/dsk /dev/vx/dmp
#ln -s /dev/rdsk /dev/vx/rdmp
```

edit /etc/system and remove the line: 'forceload: drv/vxdmp'

```
#reboot
```

Building Volumes

Note: A5200 step scripts are different than the A3500's. Make sure you run the correct ones.

ON BOTH nodes run step1: (ignore the errors)

```
#cd /export/home/user/deployteamwork/install
#cd vxvm-install/V2.7/step1-initdg
#./init-rootdg
```

Do Following steps on **only one node**.

```
#cd /export/home/user/deployteamwork/install
#cd vxvm-install/V2.7/step2-vxdisksetup
#./vxdisksetup-001-V2.7
#./vxdisksetup-002-V2.7
#cd ../step3-vxdg
#./vxdg.V2.7-001
#./vxdg.V2.7-002
#./vxdg.V2.7_scdg
#cd ../step4-volumebuild
#./volumebuild-001-V2.7
#./volumebuildmirror-002-V2.7
#cd ../step5-mkfs
#./mkfs.001-V2.7
```

These scripts will start vxassist processes in background. These Processes will take few hours to finish. Make sure that all the 'vxassist' processes are finished before you continue.

Verify that all volumes created properly by command vxprint -ht. You need to see volumes and plexes are enabled and all disks are available in output of this command. Do not use for this verification.

```
#vxprint -ht
Disk group: rootdg
DG NAME          NCONFIG    NLOG      MINORS   GROUP-ID
DM NAME          DEVICE     TYPE      PRIVLEN  PUBLN    STATE
V NAME          USETYPE   KSTATE    STATE    LENGTH  READPOL  PREFPLEX
PL NAME          VOLUME    KSTATE    STATE    LENGTH  LAYOUT   NCOL/WID MODE
SD NAME          PLEX      DISK      DISKOFFS LENGTH  [COL/]OFF DEVICE  MODE
```

```

dg rootdg      all          all          0          973016739.1025.ha1

dm c0t10d0s7  c0t10d0s7  simple     1024      83791     -
dm c0t11d0s7  c0t11d0s7  simple     1024      83791     -

Disk group: lh1

DG NAME      NCONFIG     NLOG        MINORS     GROUP-ID
DM NAME      DEVICE      TYPE        PRIVLEN    PUBLEN     STATE
V NAME      USETYPE     KSTATE      STATE      LENGTH    READPOL    PREFPLEX
PL NAME      VOLUME     KSTATE      STATE      LENGTH    LAYOUT     NCOL/WID  MODE
SD NAME      PLEX       DISK        DISKOFFS   LENGTH    [COL/]OFF  DEVICE     MODE

dg lh1       default     default     44000     973017407.1237.ha1

dm disk02    c1t5d5s2   sliced     4095      70578176  -
dm disk04    c3t4d7s2   sliced     4095      70578176  -
dm disk06    c1t5d9s2   sliced     4095      70578176  -
dm disk08    c3t4d11s2  sliced     4095      70578176  -
dm disk10    c1t5d13s2  sliced     4095      70578176  -
dm disk12    c3t4d15s2  sliced     4095      70578176  -
dm disk14    c1t5d17s2  sliced     4095      70578176  -
dm disk16    c3t4d19s2  sliced     4095      70578176  -
dm disk18    c1t5d21s2  sliced     4095      70578176  -
dm disk20    c3t4d23s2  sliced     4095      70578176  -
dm disk22    c1t5d25s2  sliced     4095      70578176  -
dm disk24    c3t4d27s2  sliced     4095      70578176  -
dm disk26    c1t5d29s2  sliced     4095      70578176  -
dm disk28    c3t4d31s2  sliced     4095      70578176  -
dm disk102   c2t5d5s2   sliced     4095      70578176  -
dm disk104   c4t4d7s2   sliced     4095      70578176  -
dm disk106   c2t5d9s2   sliced     4095      70578176  -
dm disk108   c4t4d11s2  sliced     4095      70578176  -
dm disk110   c2t5d13s2  sliced     4095      70578176  -
dm disk112   c4t4d15s2  sliced     4095      70578176  -
dm disk114   c2t5d17s2  sliced     4095      70578176  -
dm disk116   c4t4d19s2  sliced     4095      70578176  -
dm disk118   c2t5d21s2  sliced     4095      70578176  -
dm disk120   c4t4d23s2  sliced     4095      70578176  -
dm disk122   c2t5d25s2  sliced     4095      70578176  -
dm disk124   c4t4d27s2  sliced     4095      70578176  -
dm disk126   c2t5d29s2  sliced     4095      70578176  -
dm disk128   c4t4d31s2  sliced     4095      70578176  -
dm lhlvol1  c1t5d1s2   sliced     4095      4182016  -
dm lhlvolm  c2t5d1s2   sliced     4095      4182016  -

v dircache   fsgen      ENABLED    ACTIVE    18432000  SELECT    -
pl dircache-01 dircache  ENABLED    ACTIVE    18432512  STRIPE    14/128    RW
sd disk02-01  dircache-01 disk02     0         1316608  0/0       c1t5d5    ENA
sd disk06-01  dircache-01 disk06     0         1316608  1/0       c1t5d9    ENA
sd disk10-01  dircache-01 disk10     0         1316608  2/0       c1t5d13   ENA
sd disk14-01  dircache-01 disk14     0         1316608  3/0       c1t5d17   ENA
sd disk18-01  dircache-01 disk18     0         1316608  4/0       c1t5d21   ENA
sd disk22-01  dircache-01 disk22     0         1316608  5/0       c1t5d25   ENA
sd disk26-01  dircache-01 disk26     0         1316608  6/0       c1t5d29   ENA
sd disk04-01  dircache-01 disk04     0         1316608  7/0       c3t4d7    ENA
sd disk08-01  dircache-01 disk08     0         1316608  8/0       c3t4d11   ENA
sd disk12-01  dircache-01 disk12     0         1316608  9/0       c3t4d15   ENA
sd disk16-01  dircache-01 disk16     0         1316608  10/0      c3t4d19   ENA
sd disk20-01  dircache-01 disk20     0         1316608  11/0      c3t4d23   ENA
sd disk24-01  dircache-01 disk24     0         1316608  12/0      c3t4d27   ENA
sd disk28-01  dircache-01 disk28     0         1316608  13/0      c3t4d31   ENA
pl dircache-02 dircache  ENABLED    ACTIVE    18432512  STRIPE    14/128    RW
sd disk102-01 dircache-02 disk102    0         1316608  0/0       c2t5d5    ENA
sd disk106-01 dircache-02 disk106    0         1316608  1/0       c2t5d9    ENA
sd disk110-01 dircache-02 disk110    0         1316608  2/0       c2t5d13   ENA
sd disk114-01 dircache-02 disk114    0         1316608  3/0       c2t5d17   ENA
sd disk118-01 dircache-02 disk118    0         1316608  4/0       c2t5d21   ENA
sd disk122-01 dircache-02 disk122    0         1316608  5/0       c2t5d25   ENA
sd disk126-01 dircache-02 disk126    0         1316608  6/0       c2t5d29   ENA

```

sd	disk104-01	dircache-02	disk104	0	1316608	7/0	c4t4d7	ENA
sd	disk108-01	dircache-02	disk108	0	1316608	8/0	c4t4d11	ENA
sd	disk112-01	dircache-02	disk112	0	1316608	9/0	c4t4d15	ENA
sd	disk116-01	dircache-02	disk116	0	1316608	10/0	c4t4d19	ENA
sd	disk120-01	dircache-02	disk120	0	1316608	11/0	c4t4d23	ENA
sd	disk124-01	dircache-02	disk124	0	1316608	12/0	c4t4d27	ENA
sd	disk128-01	dircache-02	disk128	0	1316608	13/0	c4t4d31	ENA
v	imail	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	imail-01	imail	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-05	imail-01	disk02	5266432	1316608	0/0	c1t5d5	ENA
sd	disk06-05	imail-01	disk06	5266432	1316608	1/0	c1t5d9	ENA
sd	disk10-05	imail-01	disk10	5266432	1316608	2/0	c1t5d13	ENA
sd	disk14-05	imail-01	disk14	5266432	1316608	3/0	c1t5d17	ENA
sd	disk18-05	imail-01	disk18	5266432	1316608	4/0	c1t5d21	ENA
sd	disk22-05	imail-01	disk22	5266432	1316608	5/0	c1t5d25	ENA
sd	disk26-05	imail-01	disk26	5266432	1316608	6/0	c1t5d29	ENA
sd	disk04-05	imail-01	disk04	5266432	1316608	7/0	c3t4d7	ENA
sd	disk08-05	imail-01	disk08	5266432	1316608	8/0	c3t4d11	ENA
sd	disk12-05	imail-01	disk12	5266432	1316608	9/0	c3t4d15	ENA
sd	disk16-05	imail-01	disk16	5266432	1316608	10/0	c3t4d19	ENA
sd	disk20-05	imail-01	disk20	5266432	1316608	11/0	c3t4d23	ENA
sd	disk24-05	imail-01	disk24	5266432	1316608	12/0	c3t4d27	ENA
sd	disk28-05	imail-01	disk28	5266432	1316608	13/0	c3t4d31	ENA
pl	imail-02	imail	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-03	imail-02	disk102	2633216	1316608	0/0	c2t5d5	ENA
sd	disk106-03	imail-02	disk106	2633216	1316608	1/0	c2t5d9	ENA
sd	disk110-03	imail-02	disk110	2633216	1316608	2/0	c2t5d13	ENA
sd	disk114-03	imail-02	disk114	2633216	1316608	3/0	c2t5d17	ENA
sd	disk118-03	imail-02	disk118	2633216	1316608	4/0	c2t5d21	ENA
sd	disk122-03	imail-02	disk122	2633216	1316608	5/0	c2t5d25	ENA
sd	disk126-03	imail-02	disk126	2633216	1316608	6/0	c2t5d29	ENA
sd	disk104-03	imail-02	disk104	2633216	1316608	7/0	c4t4d7	ENA
sd	disk108-03	imail-02	disk108	2633216	1316608	8/0	c4t4d11	ENA
sd	disk112-03	imail-02	disk112	2633216	1316608	9/0	c4t4d15	ENA
sd	disk116-03	imail-02	disk116	2633216	1316608	10/0	c4t4d19	ENA
sd	disk120-03	imail-02	disk120	2633216	1316608	11/0	c4t4d23	ENA
sd	disk124-03	imail-02	disk124	2633216	1316608	12/0	c4t4d27	ENA
sd	disk128-03	imail-02	disk128	2633216	1316608	13/0	c4t4d31	ENA
v	imaillog	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	imaillog-02	imaillog	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-04	imaillog-02	disk102	3949824	1316608	0/0	c2t5d5	ENA
sd	disk106-04	imaillog-02	disk106	3949824	1316608	1/0	c2t5d9	ENA
sd	disk110-04	imaillog-02	disk110	3949824	1316608	2/0	c2t5d13	ENA
sd	disk114-04	imaillog-02	disk114	3949824	1316608	3/0	c2t5d17	ENA
sd	disk118-04	imaillog-02	disk118	3949824	1316608	4/0	c2t5d21	ENA
sd	disk122-04	imaillog-02	disk122	3949824	1316608	5/0	c2t5d25	ENA
sd	disk126-04	imaillog-02	disk126	3949824	1316608	6/0	c2t5d29	ENA
sd	disk104-04	imaillog-02	disk104	3949824	1316608	7/0	c4t4d7	ENA
sd	disk108-04	imaillog-02	disk108	3949824	1316608	8/0	c4t4d11	ENA
sd	disk112-04	imaillog-02	disk112	3949824	1316608	9/0	c4t4d15	ENA
sd	disk116-04	imaillog-02	disk116	3949824	1316608	10/0	c4t4d19	ENA
sd	disk120-04	imaillog-02	disk120	3949824	1316608	11/0	c4t4d23	ENA
sd	disk124-04	imaillog-02	disk124	3949824	1316608	12/0	c4t4d27	ENA
sd	disk128-04	imaillog-02	disk128	3949824	1316608	13/0	c4t4d31	ENA
pl	imaillog-01	imaillog	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-13	imaillog-01	disk02	15799296	1316608	0/0	c1t5d5	ENA
sd	disk06-13	imaillog-01	disk06	15799296	1316608	1/0	c1t5d9	ENA
sd	disk10-13	imaillog-01	disk10	15799296	1316608	2/0	c1t5d13	ENA
sd	disk14-13	imaillog-01	disk14	15799296	1316608	3/0	c1t5d17	ENA
sd	disk18-13	imaillog-01	disk18	15799296	1316608	4/0	c1t5d21	ENA
sd	disk22-13	imaillog-01	disk22	15799296	1316608	5/0	c1t5d25	ENA
sd	disk26-13	imaillog-01	disk26	15799296	1316608	6/0	c1t5d29	ENA
sd	disk04-13	imaillog-01	disk04	15799296	1316608	7/0	c3t4d7	ENA
sd	disk08-13	imaillog-01	disk08	15799296	1316608	8/0	c3t4d11	ENA
sd	disk12-13	imaillog-01	disk12	15799296	1316608	9/0	c3t4d15	ENA
sd	disk16-13	imaillog-01	disk16	15799296	1316608	10/0	c3t4d19	ENA
sd	disk20-13	imaillog-01	disk20	15799296	1316608	11/0	c3t4d23	ENA
sd	disk24-13	imaillog-01	disk24	15799296	1316608	12/0	c3t4d27	ENA

sd disk28-13	imaillog-01	disk28	15799296	1316608	13/0	c3t4d31	ENA
v imailqueue	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl imailqueue-01	imailqueue	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-02	imailqueue-01	disk02	1316608	1316608	0/0	c1t5d5	ENA
sd disk06-02	imailqueue-01	disk06	1316608	1316608	1/0	c1t5d9	ENA
sd disk10-02	imailqueue-01	disk10	1316608	1316608	2/0	c1t5d13	ENA
sd disk14-02	imailqueue-01	disk14	1316608	1316608	3/0	c1t5d17	ENA
sd disk18-02	imailqueue-01	disk18	1316608	1316608	4/0	c1t5d21	ENA
sd disk22-02	imailqueue-01	disk22	1316608	1316608	5/0	c1t5d25	ENA
sd disk26-02	imailqueue-01	disk26	1316608	1316608	6/0	c1t5d29	ENA
sd disk04-02	imailqueue-01	disk04	1316608	1316608	7/0	c3t4d7	ENA
sd disk08-02	imailqueue-01	disk08	1316608	1316608	8/0	c3t4d11	ENA
sd disk12-02	imailqueue-01	disk12	1316608	1316608	9/0	c3t4d15	ENA
sd disk16-02	imailqueue-01	disk16	1316608	1316608	10/0	c3t4d19	ENA
sd disk20-02	imailqueue-01	disk20	1316608	1316608	11/0	c3t4d23	ENA
sd disk24-02	imailqueue-01	disk24	1316608	1316608	12/0	c3t4d27	ENA
sd disk28-02	imailqueue-01	disk28	1316608	1316608	13/0	c3t4d31	ENA
pl imailqueue-02	imailqueue	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-02	imailqueue-02	disk102	1316608	1316608	0/0	c2t5d5	ENA
sd disk106-02	imailqueue-02	disk106	1316608	1316608	1/0	c2t5d9	ENA
sd disk110-02	imailqueue-02	disk110	1316608	1316608	2/0	c2t5d13	ENA
sd disk114-02	imailqueue-02	disk114	1316608	1316608	3/0	c2t5d17	ENA
sd disk118-02	imailqueue-02	disk118	1316608	1316608	4/0	c2t5d21	ENA
sd disk122-02	imailqueue-02	disk122	1316608	1316608	5/0	c2t5d25	ENA
sd disk126-02	imailqueue-02	disk126	1316608	1316608	6/0	c2t5d29	ENA
sd disk104-02	imailqueue-02	disk104	1316608	1316608	7/0	c4t4d7	ENA
sd disk108-02	imailqueue-02	disk108	1316608	1316608	8/0	c4t4d11	ENA
sd disk112-02	imailqueue-02	disk112	1316608	1316608	9/0	c4t4d15	ENA
sd disk116-02	imailqueue-02	disk116	1316608	1316608	10/0	c4t4d19	ENA
sd disk120-02	imailqueue-02	disk120	1316608	1316608	11/0	c4t4d23	ENA
sd disk124-02	imailqueue-02	disk124	1316608	1316608	12/0	c4t4d27	ENA
sd disk128-02	imailqueue-02	disk128	1316608	1316608	13/0	c4t4d31	ENA
v lhl-vol	fsgen	ENABLED	ACTIVE	1500	SELECT	-	
pl lhl-vol-02	lhl-vol	ENABLED	ACTIVE	1500	CONCAT	-	RW
sd lhlvolm-01	lhl-vol-02	lhlvolm	0	1500	0	c2t5d1	ENA
pl lhl-vol-01	lhl-vol	ENABLED	ACTIVE	1500	CONCAT	-	RW
sd lhlvol-01	lhl-vol-01	lhlvol	0	1500	0	c1t5d1	ENA
v msg01	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg01-01	msg01	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-14	msg01-01	disk02	17115904	1316608	0/0	c1t5d5	ENA
sd disk06-14	msg01-01	disk06	17115904	1316608	1/0	c1t5d9	ENA
sd disk10-14	msg01-01	disk10	17115904	1316608	2/0	c1t5d13	ENA
sd disk14-14	msg01-01	disk14	17115904	1316608	3/0	c1t5d17	ENA
sd disk18-14	msg01-01	disk18	17115904	1316608	4/0	c1t5d21	ENA
sd disk22-14	msg01-01	disk22	17115904	1316608	5/0	c1t5d25	ENA
sd disk26-14	msg01-01	disk26	17115904	1316608	6/0	c1t5d29	ENA
sd disk04-14	msg01-01	disk04	17115904	1316608	7/0	c3t4d7	ENA
sd disk08-14	msg01-01	disk08	17115904	1316608	8/0	c3t4d11	ENA
sd disk12-14	msg01-01	disk12	17115904	1316608	9/0	c3t4d15	ENA
sd disk16-14	msg01-01	disk16	17115904	1316608	10/0	c3t4d19	ENA
sd disk20-14	msg01-01	disk20	17115904	1316608	11/0	c3t4d23	ENA
sd disk24-14	msg01-01	disk24	17115904	1316608	12/0	c3t4d27	ENA
sd disk28-14	msg01-01	disk28	17115904	1316608	13/0	c3t4d31	ENA
pl msg01-02	msg01	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-09	msg01-02	disk102	10532864	1316608	0/0	c2t5d5	ENA
sd disk106-09	msg01-02	disk106	10532864	1316608	1/0	c2t5d9	ENA
sd disk110-09	msg01-02	disk110	10532864	1316608	2/0	c2t5d13	ENA
sd disk114-09	msg01-02	disk114	10532864	1316608	3/0	c2t5d17	ENA
sd disk118-09	msg01-02	disk118	10532864	1316608	4/0	c2t5d21	ENA
sd disk122-09	msg01-02	disk122	10532864	1316608	5/0	c2t5d25	ENA
sd disk126-09	msg01-02	disk126	10532864	1316608	6/0	c2t5d29	ENA
sd disk104-09	msg01-02	disk104	10532864	1316608	7/0	c4t4d7	ENA
sd disk108-09	msg01-02	disk108	10532864	1316608	8/0	c4t4d11	ENA
sd disk112-09	msg01-02	disk112	10532864	1316608	9/0	c4t4d15	ENA
sd disk116-09	msg01-02	disk116	10532864	1316608	10/0	c4t4d19	ENA
sd disk120-09	msg01-02	disk120	10532864	1316608	11/0	c4t4d23	ENA
sd disk124-09	msg01-02	disk124	10532864	1316608	12/0	c4t4d27	ENA

sd disk128-09	msg01-02	disk128	10532864	1316608	13/0	c4t4d31	ENA
v msg02	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg02-02	msg02	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-05	msg02-02	disk102	5266432	1316608	0/0	c2t5d5	ENA
sd disk106-05	msg02-02	disk106	5266432	1316608	1/0	c2t5d9	ENA
sd disk110-05	msg02-02	disk110	5266432	1316608	2/0	c2t5d13	ENA
sd disk114-05	msg02-02	disk114	5266432	1316608	3/0	c2t5d17	ENA
sd disk118-05	msg02-02	disk118	5266432	1316608	4/0	c2t5d21	ENA
sd disk122-05	msg02-02	disk122	5266432	1316608	5/0	c2t5d25	ENA
sd disk126-05	msg02-02	disk126	5266432	1316608	6/0	c2t5d29	ENA
sd disk104-05	msg02-02	disk104	5266432	1316608	7/0	c4t4d7	ENA
sd disk108-05	msg02-02	disk108	5266432	1316608	8/0	c4t4d11	ENA
sd disk112-05	msg02-02	disk112	5266432	1316608	9/0	c4t4d15	ENA
sd disk116-05	msg02-02	disk116	5266432	1316608	10/0	c4t4d19	ENA
sd disk120-05	msg02-02	disk120	5266432	1316608	11/0	c4t4d23	ENA
sd disk124-05	msg02-02	disk124	5266432	1316608	12/0	c4t4d27	ENA
sd disk128-05	msg02-02	disk128	5266432	1316608	13/0	c4t4d31	ENA
pl msg02-01	msg02	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-09	msg02-01	disk02	10532864	1316608	0/0	c1t5d5	ENA
sd disk06-09	msg02-01	disk06	10532864	1316608	1/0	c1t5d9	ENA
sd disk10-09	msg02-01	disk10	10532864	1316608	2/0	c1t5d13	ENA
sd disk14-09	msg02-01	disk14	10532864	1316608	3/0	c1t5d17	ENA
sd disk18-09	msg02-01	disk18	10532864	1316608	4/0	c1t5d21	ENA
sd disk22-09	msg02-01	disk22	10532864	1316608	5/0	c1t5d25	ENA
sd disk26-09	msg02-01	disk26	10532864	1316608	6/0	c1t5d29	ENA
sd disk04-09	msg02-01	disk04	10532864	1316608	7/0	c3t4d7	ENA
sd disk08-09	msg02-01	disk08	10532864	1316608	8/0	c3t4d11	ENA
sd disk12-09	msg02-01	disk12	10532864	1316608	9/0	c3t4d15	ENA
sd disk16-09	msg02-01	disk16	10532864	1316608	10/0	c3t4d19	ENA
sd disk20-09	msg02-01	disk20	10532864	1316608	11/0	c3t4d23	ENA
sd disk24-09	msg02-01	disk24	10532864	1316608	12/0	c3t4d27	ENA
sd disk28-09	msg02-01	disk28	10532864	1316608	13/0	c3t4d31	ENA
v msg03	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg03-02	msg03	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-19	msg03-02	disk102	23698944	1316608	0/0	c2t5d5	ENA
sd disk106-19	msg03-02	disk106	23698944	1316608	1/0	c2t5d9	ENA
sd disk110-19	msg03-02	disk110	23698944	1316608	2/0	c2t5d13	ENA
sd disk114-19	msg03-02	disk114	23698944	1316608	3/0	c2t5d17	ENA
sd disk118-19	msg03-02	disk118	23698944	1316608	4/0	c2t5d21	ENA
sd disk122-19	msg03-02	disk122	23698944	1316608	5/0	c2t5d25	ENA
sd disk126-19	msg03-02	disk126	23698944	1316608	6/0	c2t5d29	ENA
sd disk104-19	msg03-02	disk104	23698944	1316608	7/0	c4t4d7	ENA
sd disk108-19	msg03-02	disk108	23698944	1316608	8/0	c4t4d11	ENA
sd disk112-19	msg03-02	disk112	23698944	1316608	9/0	c4t4d15	ENA
sd disk116-19	msg03-02	disk116	23698944	1316608	10/0	c4t4d19	ENA
sd disk120-19	msg03-02	disk120	23698944	1316608	11/0	c4t4d23	ENA
sd disk124-19	msg03-02	disk124	23698944	1316608	12/0	c4t4d27	ENA
sd disk128-19	msg03-02	disk128	23698944	1316608	13/0	c4t4d31	ENA
pl msg03-01	msg03	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-15	msg03-01	disk02	18432512	1316608	0/0	c1t5d5	ENA
sd disk06-15	msg03-01	disk06	18432512	1316608	1/0	c1t5d9	ENA
sd disk10-15	msg03-01	disk10	18432512	1316608	2/0	c1t5d13	ENA
sd disk14-15	msg03-01	disk14	18432512	1316608	3/0	c1t5d17	ENA
sd disk18-15	msg03-01	disk18	18432512	1316608	4/0	c1t5d21	ENA
sd disk22-15	msg03-01	disk22	18432512	1316608	5/0	c1t5d25	ENA
sd disk26-15	msg03-01	disk26	18432512	1316608	6/0	c1t5d29	ENA
sd disk04-15	msg03-01	disk04	18432512	1316608	7/0	c3t4d7	ENA
sd disk08-15	msg03-01	disk08	18432512	1316608	8/0	c3t4d11	ENA
sd disk12-15	msg03-01	disk12	18432512	1316608	9/0	c3t4d15	ENA
sd disk16-15	msg03-01	disk16	18432512	1316608	10/0	c3t4d19	ENA
sd disk20-15	msg03-01	disk20	18432512	1316608	11/0	c3t4d23	ENA
sd disk24-15	msg03-01	disk24	18432512	1316608	12/0	c3t4d27	ENA
sd disk28-15	msg03-01	disk28	18432512	1316608	13/0	c3t4d31	ENA
v msg04	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg04-02	msg04	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-21	msg04-02	disk102	26332160	1316608	0/0	c2t5d5	ENA
sd disk106-21	msg04-02	disk106	26332160	1316608	1/0	c2t5d9	ENA

sd	disk110-21	msg04-02	disk110	26332160	1316608	2/0	c2t5d13	ENA
sd	disk114-21	msg04-02	disk114	26332160	1316608	3/0	c2t5d17	ENA
sd	disk118-21	msg04-02	disk118	26332160	1316608	4/0	c2t5d21	ENA
sd	disk122-21	msg04-02	disk122	26332160	1316608	5/0	c2t5d25	ENA
sd	disk126-21	msg04-02	disk126	26332160	1316608	6/0	c2t5d29	ENA
sd	disk104-21	msg04-02	disk104	26332160	1316608	7/0	c4t4d7	ENA
sd	disk108-21	msg04-02	disk108	26332160	1316608	8/0	c4t4d11	ENA
sd	disk112-21	msg04-02	disk112	26332160	1316608	9/0	c4t4d15	ENA
sd	disk116-21	msg04-02	disk116	26332160	1316608	10/0	c4t4d19	ENA
sd	disk120-21	msg04-02	disk120	26332160	1316608	11/0	c4t4d23	ENA
sd	disk124-21	msg04-02	disk124	26332160	1316608	12/0	c4t4d27	ENA
sd	disk128-21	msg04-02	disk128	26332160	1316608	13/0	c4t4d31	ENA
pl	msg04-01	msg04	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-23	msg04-01	disk02	28965376	1316608	0/0	c1t5d5	ENA
sd	disk06-23	msg04-01	disk06	28965376	1316608	1/0	c1t5d9	ENA
sd	disk10-23	msg04-01	disk10	28965376	1316608	2/0	c1t5d13	ENA
sd	disk14-23	msg04-01	disk14	28965376	1316608	3/0	c1t5d17	ENA
sd	disk18-23	msg04-01	disk18	28965376	1316608	4/0	c1t5d21	ENA
sd	disk22-23	msg04-01	disk22	28965376	1316608	5/0	c1t5d25	ENA
sd	disk26-23	msg04-01	disk26	28965376	1316608	6/0	c1t5d29	ENA
sd	disk04-23	msg04-01	disk04	28965376	1316608	7/0	c3t4d7	ENA
sd	disk08-23	msg04-01	disk08	28965376	1316608	8/0	c3t4d11	ENA
sd	disk12-23	msg04-01	disk12	28965376	1316608	9/0	c3t4d15	ENA
sd	disk16-23	msg04-01	disk16	28965376	1316608	10/0	c3t4d19	ENA
sd	disk20-23	msg04-01	disk20	28965376	1316608	11/0	c3t4d23	ENA
sd	disk24-23	msg04-01	disk24	28965376	1316608	12/0	c3t4d27	ENA
sd	disk28-23	msg04-01	disk28	28965376	1316608	13/0	c3t4d31	ENA
v	msg05	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg05-02	msg05	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-12	msg05-02	disk102	14482688	1316608	0/0	c2t5d5	ENA
sd	disk106-12	msg05-02	disk106	14482688	1316608	1/0	c2t5d9	ENA
sd	disk110-12	msg05-02	disk110	14482688	1316608	2/0	c2t5d13	ENA
sd	disk114-12	msg05-02	disk114	14482688	1316608	3/0	c2t5d17	ENA
sd	disk118-12	msg05-02	disk118	14482688	1316608	4/0	c2t5d21	ENA
sd	disk122-12	msg05-02	disk122	14482688	1316608	5/0	c2t5d25	ENA
sd	disk126-12	msg05-02	disk126	14482688	1316608	6/0	c2t5d29	ENA
sd	disk104-12	msg05-02	disk104	14482688	1316608	7/0	c4t4d7	ENA
sd	disk108-12	msg05-02	disk108	14482688	1316608	8/0	c4t4d11	ENA
sd	disk112-12	msg05-02	disk112	14482688	1316608	9/0	c4t4d15	ENA
sd	disk116-12	msg05-02	disk116	14482688	1316608	10/0	c4t4d19	ENA
sd	disk120-12	msg05-02	disk120	14482688	1316608	11/0	c4t4d23	ENA
sd	disk124-12	msg05-02	disk124	14482688	1316608	12/0	c4t4d27	ENA
sd	disk128-12	msg05-02	disk128	14482688	1316608	13/0	c4t4d31	ENA
pl	msg05-01	msg05	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-27	msg05-01	disk02	34231808	1316608	0/0	c1t5d5	ENA
sd	disk06-27	msg05-01	disk06	34231808	1316608	1/0	c1t5d9	ENA
sd	disk10-27	msg05-01	disk10	34231808	1316608	2/0	c1t5d13	ENA
sd	disk14-27	msg05-01	disk14	34231808	1316608	3/0	c1t5d17	ENA
sd	disk18-27	msg05-01	disk18	34231808	1316608	4/0	c1t5d21	ENA
sd	disk22-27	msg05-01	disk22	34231808	1316608	5/0	c1t5d25	ENA
sd	disk26-27	msg05-01	disk26	34231808	1316608	6/0	c1t5d29	ENA
sd	disk04-27	msg05-01	disk04	34231808	1316608	7/0	c3t4d7	ENA
sd	disk08-27	msg05-01	disk08	34231808	1316608	8/0	c3t4d11	ENA
sd	disk12-27	msg05-01	disk12	34231808	1316608	9/0	c3t4d15	ENA
sd	disk16-27	msg05-01	disk16	34231808	1316608	10/0	c3t4d19	ENA
sd	disk20-27	msg05-01	disk20	34231808	1316608	11/0	c3t4d23	ENA
sd	disk24-27	msg05-01	disk24	34231808	1316608	12/0	c3t4d27	ENA
sd	disk28-27	msg05-01	disk28	34231808	1316608	13/0	c3t4d31	ENA
v	msg06	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg06-01	msg06	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-12	msg06-01	disk02	14482688	1316608	0/0	c1t5d5	ENA
sd	disk06-12	msg06-01	disk06	14482688	1316608	1/0	c1t5d9	ENA
sd	disk10-12	msg06-01	disk10	14482688	1316608	2/0	c1t5d13	ENA
sd	disk14-12	msg06-01	disk14	14482688	1316608	3/0	c1t5d17	ENA
sd	disk18-12	msg06-01	disk18	14482688	1316608	4/0	c1t5d21	ENA
sd	disk22-12	msg06-01	disk22	14482688	1316608	5/0	c1t5d25	ENA
sd	disk26-12	msg06-01	disk26	14482688	1316608	6/0	c1t5d29	ENA
sd	disk04-12	msg06-01	disk04	14482688	1316608	7/0	c3t4d7	ENA

sd disk08-12	msg06-01	disk08	14482688	1316608	8/0	c3t4d11	ENA
sd disk12-12	msg06-01	disk12	14482688	1316608	9/0	c3t4d15	ENA
sd disk16-12	msg06-01	disk16	14482688	1316608	10/0	c3t4d19	ENA
sd disk20-12	msg06-01	disk20	14482688	1316608	11/0	c3t4d23	ENA
sd disk24-12	msg06-01	disk24	14482688	1316608	12/0	c3t4d27	ENA
sd disk28-12	msg06-01	disk28	14482688	1316608	13/0	c3t4d31	ENA
pl msg06-02	msg06	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-08	msg06-02	disk102	9216256	1316608	0/0	c2t5d5	ENA
sd disk106-08	msg06-02	disk106	9216256	1316608	1/0	c2t5d9	ENA
sd disk110-08	msg06-02	disk110	9216256	1316608	2/0	c2t5d13	ENA
sd disk114-08	msg06-02	disk114	9216256	1316608	3/0	c2t5d17	ENA
sd disk118-08	msg06-02	disk118	9216256	1316608	4/0	c2t5d21	ENA
sd disk122-08	msg06-02	disk122	9216256	1316608	5/0	c2t5d25	ENA
sd disk126-08	msg06-02	disk126	9216256	1316608	6/0	c2t5d29	ENA
sd disk104-08	msg06-02	disk104	9216256	1316608	7/0	c4t4d7	ENA
sd disk108-08	msg06-02	disk108	9216256	1316608	8/0	c4t4d11	ENA
sd disk112-08	msg06-02	disk112	9216256	1316608	9/0	c4t4d15	ENA
sd disk116-08	msg06-02	disk116	9216256	1316608	10/0	c4t4d19	ENA
sd disk120-08	msg06-02	disk120	9216256	1316608	11/0	c4t4d23	ENA
sd disk124-08	msg06-02	disk124	9216256	1316608	12/0	c4t4d27	ENA
sd disk128-08	msg06-02	disk128	9216256	1316608	13/0	c4t4d31	ENA
v msg07	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg07-02	msg07	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-15	msg07-02	disk102	18432512	1316608	0/0	c2t5d5	ENA
sd disk106-15	msg07-02	disk106	18432512	1316608	1/0	c2t5d9	ENA
sd disk110-15	msg07-02	disk110	18432512	1316608	2/0	c2t5d13	ENA
sd disk114-15	msg07-02	disk114	18432512	1316608	3/0	c2t5d17	ENA
sd disk118-15	msg07-02	disk118	18432512	1316608	4/0	c2t5d21	ENA
sd disk122-15	msg07-02	disk122	18432512	1316608	5/0	c2t5d25	ENA
sd disk126-15	msg07-02	disk126	18432512	1316608	6/0	c2t5d29	ENA
sd disk104-15	msg07-02	disk104	18432512	1316608	7/0	c4t4d7	ENA
sd disk108-15	msg07-02	disk108	18432512	1316608	8/0	c4t4d11	ENA
sd disk112-15	msg07-02	disk112	18432512	1316608	9/0	c4t4d15	ENA
sd disk116-15	msg07-02	disk116	18432512	1316608	10/0	c4t4d19	ENA
sd disk120-15	msg07-02	disk120	18432512	1316608	11/0	c4t4d23	ENA
sd disk124-15	msg07-02	disk124	18432512	1316608	12/0	c4t4d27	ENA
sd disk128-15	msg07-02	disk128	18432512	1316608	13/0	c4t4d31	ENA
pl msg07-01	msg07	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-17	msg07-01	disk02	21065728	1316608	0/0	c1t5d5	ENA
sd disk06-17	msg07-01	disk06	21065728	1316608	1/0	c1t5d9	ENA
sd disk10-17	msg07-01	disk10	21065728	1316608	2/0	c1t5d13	ENA
sd disk14-17	msg07-01	disk14	21065728	1316608	3/0	c1t5d17	ENA
sd disk18-17	msg07-01	disk18	21065728	1316608	4/0	c1t5d21	ENA
sd disk22-17	msg07-01	disk22	21065728	1316608	5/0	c1t5d25	ENA
sd disk26-17	msg07-01	disk26	21065728	1316608	6/0	c1t5d29	ENA
sd disk04-17	msg07-01	disk04	21065728	1316608	7/0	c3t4d7	ENA
sd disk08-17	msg07-01	disk08	21065728	1316608	8/0	c3t4d11	ENA
sd disk12-17	msg07-01	disk12	21065728	1316608	9/0	c3t4d15	ENA
sd disk16-17	msg07-01	disk16	21065728	1316608	10/0	c3t4d19	ENA
sd disk20-17	msg07-01	disk20	21065728	1316608	11/0	c3t4d23	ENA
sd disk24-17	msg07-01	disk24	21065728	1316608	12/0	c3t4d27	ENA
sd disk28-17	msg07-01	disk28	21065728	1316608	13/0	c3t4d31	ENA
v msg08	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg08-02	msg08	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-24	msg08-02	disk102	30281984	1316608	0/0	c2t5d5	ENA
sd disk106-24	msg08-02	disk106	30281984	1316608	1/0	c2t5d9	ENA
sd disk110-24	msg08-02	disk110	30281984	1316608	2/0	c2t5d13	ENA
sd disk114-24	msg08-02	disk114	30281984	1316608	3/0	c2t5d17	ENA
sd disk118-24	msg08-02	disk118	30281984	1316608	4/0	c2t5d21	ENA
sd disk122-24	msg08-02	disk122	30281984	1316608	5/0	c2t5d25	ENA
sd disk126-24	msg08-02	disk126	30281984	1316608	6/0	c2t5d29	ENA
sd disk104-24	msg08-02	disk104	30281984	1316608	7/0	c4t4d7	ENA
sd disk108-24	msg08-02	disk108	30281984	1316608	8/0	c4t4d11	ENA
sd disk112-24	msg08-02	disk112	30281984	1316608	9/0	c4t4d15	ENA
sd disk116-24	msg08-02	disk116	30281984	1316608	10/0	c4t4d19	ENA
sd disk120-24	msg08-02	disk120	30281984	1316608	11/0	c4t4d23	ENA
sd disk124-24	msg08-02	disk124	30281984	1316608	12/0	c4t4d27	ENA
sd disk128-24	msg08-02	disk128	30281984	1316608	13/0	c4t4d31	ENA

pl msg08-01	msg08	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-10	msg08-01	disk02	11849472	1316608	0/0	c1t5d5	ENA
sd disk06-10	msg08-01	disk06	11849472	1316608	1/0	c1t5d9	ENA
sd disk10-10	msg08-01	disk10	11849472	1316608	2/0	c1t5d13	ENA
sd disk14-10	msg08-01	disk14	11849472	1316608	3/0	c1t5d17	ENA
sd disk18-10	msg08-01	disk18	11849472	1316608	4/0	c1t5d21	ENA
sd disk22-10	msg08-01	disk22	11849472	1316608	5/0	c1t5d25	ENA
sd disk26-10	msg08-01	disk26	11849472	1316608	6/0	c1t5d29	ENA
sd disk04-10	msg08-01	disk04	11849472	1316608	7/0	c3t4d7	ENA
sd disk08-10	msg08-01	disk08	11849472	1316608	8/0	c3t4d11	ENA
sd disk12-10	msg08-01	disk12	11849472	1316608	9/0	c3t4d15	ENA
sd disk16-10	msg08-01	disk16	11849472	1316608	10/0	c3t4d19	ENA
sd disk20-10	msg08-01	disk20	11849472	1316608	11/0	c3t4d23	ENA
sd disk24-10	msg08-01	disk24	11849472	1316608	12/0	c3t4d27	ENA
sd disk28-10	msg08-01	disk28	11849472	1316608	13/0	c3t4d31	ENA
v msg09	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg09-02	msg09	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-14	msg09-02	disk102	17115904	1316608	0/0	c2t5d5	ENA
sd disk106-14	msg09-02	disk106	17115904	1316608	1/0	c2t5d9	ENA
sd disk110-14	msg09-02	disk110	17115904	1316608	2/0	c2t5d13	ENA
sd disk114-14	msg09-02	disk114	17115904	1316608	3/0	c2t5d17	ENA
sd disk118-14	msg09-02	disk118	17115904	1316608	4/0	c2t5d21	ENA
sd disk122-14	msg09-02	disk122	17115904	1316608	5/0	c2t5d25	ENA
sd disk126-14	msg09-02	disk126	17115904	1316608	6/0	c2t5d29	ENA
sd disk104-14	msg09-02	disk104	17115904	1316608	7/0	c4t4d7	ENA
sd disk108-14	msg09-02	disk108	17115904	1316608	8/0	c4t4d11	ENA
sd disk112-14	msg09-02	disk112	17115904	1316608	9/0	c4t4d15	ENA
sd disk116-14	msg09-02	disk116	17115904	1316608	10/0	c4t4d19	ENA
sd disk120-14	msg09-02	disk120	17115904	1316608	11/0	c4t4d23	ENA
sd disk124-14	msg09-02	disk124	17115904	1316608	12/0	c4t4d27	ENA
sd disk128-14	msg09-02	disk128	17115904	1316608	13/0	c4t4d31	ENA
pl msg09-01	msg09	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-16	msg09-01	disk02	19749120	1316608	0/0	c1t5d5	ENA
sd disk06-16	msg09-01	disk06	19749120	1316608	1/0	c1t5d9	ENA
sd disk10-16	msg09-01	disk10	19749120	1316608	2/0	c1t5d13	ENA
sd disk14-16	msg09-01	disk14	19749120	1316608	3/0	c1t5d17	ENA
sd disk18-16	msg09-01	disk18	19749120	1316608	4/0	c1t5d21	ENA
sd disk22-16	msg09-01	disk22	19749120	1316608	5/0	c1t5d25	ENA
sd disk26-16	msg09-01	disk26	19749120	1316608	6/0	c1t5d29	ENA
sd disk04-16	msg09-01	disk04	19749120	1316608	7/0	c3t4d7	ENA
sd disk08-16	msg09-01	disk08	19749120	1316608	8/0	c3t4d11	ENA
sd disk12-16	msg09-01	disk12	19749120	1316608	9/0	c3t4d15	ENA
sd disk16-16	msg09-01	disk16	19749120	1316608	10/0	c3t4d19	ENA
sd disk20-16	msg09-01	disk20	19749120	1316608	11/0	c3t4d23	ENA
sd disk24-16	msg09-01	disk24	19749120	1316608	12/0	c3t4d27	ENA
sd disk28-16	msg09-01	disk28	19749120	1316608	13/0	c3t4d31	ENA
v msg10	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg10-02	msg10	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-07	msg10-02	disk102	7899648	1316608	0/0	c2t5d5	ENA
sd disk106-07	msg10-02	disk106	7899648	1316608	1/0	c2t5d9	ENA
sd disk110-07	msg10-02	disk110	7899648	1316608	2/0	c2t5d13	ENA
sd disk114-07	msg10-02	disk114	7899648	1316608	3/0	c2t5d17	ENA
sd disk118-07	msg10-02	disk118	7899648	1316608	4/0	c2t5d21	ENA
sd disk122-07	msg10-02	disk122	7899648	1316608	5/0	c2t5d25	ENA
sd disk126-07	msg10-02	disk126	7899648	1316608	6/0	c2t5d29	ENA
sd disk104-07	msg10-02	disk104	7899648	1316608	7/0	c4t4d7	ENA
sd disk108-07	msg10-02	disk108	7899648	1316608	8/0	c4t4d11	ENA
sd disk112-07	msg10-02	disk112	7899648	1316608	9/0	c4t4d15	ENA
sd disk116-07	msg10-02	disk116	7899648	1316608	10/0	c4t4d19	ENA
sd disk120-07	msg10-02	disk120	7899648	1316608	11/0	c4t4d23	ENA
sd disk124-07	msg10-02	disk124	7899648	1316608	12/0	c4t4d27	ENA
sd disk128-07	msg10-02	disk128	7899648	1316608	13/0	c4t4d31	ENA
pl msg10-01	msg10	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-04	msg10-01	disk02	3949824	1316608	0/0	c1t5d5	ENA
sd disk06-04	msg10-01	disk06	3949824	1316608	1/0	c1t5d9	ENA
sd disk10-04	msg10-01	disk10	3949824	1316608	2/0	c1t5d13	ENA
sd disk14-04	msg10-01	disk14	3949824	1316608	3/0	c1t5d17	ENA
sd disk18-04	msg10-01	disk18	3949824	1316608	4/0	c1t5d21	ENA

sd disk22-04	msg10-01	disk22	3949824	1316608	5/0	c1t5d25	ENA
sd disk26-04	msg10-01	disk26	3949824	1316608	6/0	c1t5d29	ENA
sd disk04-04	msg10-01	disk04	3949824	1316608	7/0	c3t4d7	ENA
sd disk08-04	msg10-01	disk08	3949824	1316608	8/0	c3t4d11	ENA
sd disk12-04	msg10-01	disk12	3949824	1316608	9/0	c3t4d15	ENA
sd disk16-04	msg10-01	disk16	3949824	1316608	10/0	c3t4d19	ENA
sd disk20-04	msg10-01	disk20	3949824	1316608	11/0	c3t4d23	ENA
sd disk24-04	msg10-01	disk24	3949824	1316608	12/0	c3t4d27	ENA
sd disk28-04	msg10-01	disk28	3949824	1316608	13/0	c3t4d31	ENA
v msgl1	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msgl1-01	msgl1	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-06	msg11-01	disk02	6583040	1316608	0/0	c1t5d5	ENA
sd disk06-06	msg11-01	disk06	6583040	1316608	1/0	c1t5d9	ENA
sd disk10-06	msg11-01	disk10	6583040	1316608	2/0	c1t5d13	ENA
sd disk14-06	msg11-01	disk14	6583040	1316608	3/0	c1t5d17	ENA
sd disk18-06	msg11-01	disk18	6583040	1316608	4/0	c1t5d21	ENA
sd disk22-06	msg11-01	disk22	6583040	1316608	5/0	c1t5d25	ENA
sd disk26-06	msg11-01	disk26	6583040	1316608	6/0	c1t5d29	ENA
sd disk04-06	msg11-01	disk04	6583040	1316608	7/0	c3t4d7	ENA
sd disk08-06	msg11-01	disk08	6583040	1316608	8/0	c3t4d11	ENA
sd disk12-06	msg11-01	disk12	6583040	1316608	9/0	c3t4d15	ENA
sd disk16-06	msg11-01	disk16	6583040	1316608	10/0	c3t4d19	ENA
sd disk20-06	msg11-01	disk20	6583040	1316608	11/0	c3t4d23	ENA
sd disk24-06	msg11-01	disk24	6583040	1316608	12/0	c3t4d27	ENA
sd disk28-06	msg11-01	disk28	6583040	1316608	13/0	c3t4d31	ENA
pl msgl1-02	msgl1	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-18	msg11-02	disk102	22382336	1316608	0/0	c2t5d5	ENA
sd disk106-18	msg11-02	disk106	22382336	1316608	1/0	c2t5d9	ENA
sd disk110-18	msg11-02	disk110	22382336	1316608	2/0	c2t5d13	ENA
sd disk114-18	msg11-02	disk114	22382336	1316608	3/0	c2t5d17	ENA
sd disk118-18	msg11-02	disk118	22382336	1316608	4/0	c2t5d21	ENA
sd disk122-18	msg11-02	disk122	22382336	1316608	5/0	c2t5d25	ENA
sd disk126-18	msg11-02	disk126	22382336	1316608	6/0	c2t5d29	ENA
sd disk104-18	msg11-02	disk104	22382336	1316608	7/0	c4t4d7	ENA
sd disk108-18	msg11-02	disk108	22382336	1316608	8/0	c4t4d11	ENA
sd disk112-18	msg11-02	disk112	22382336	1316608	9/0	c4t4d15	ENA
sd disk116-18	msg11-02	disk116	22382336	1316608	10/0	c4t4d19	ENA
sd disk120-18	msg11-02	disk120	22382336	1316608	11/0	c4t4d23	ENA
sd disk124-18	msg11-02	disk124	22382336	1316608	12/0	c4t4d27	ENA
sd disk128-18	msg11-02	disk128	22382336	1316608	13/0	c4t4d31	ENA
v msgl2	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msgl2-02	msgl2	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-13	msg12-02	disk102	15799296	1316608	0/0	c2t5d5	ENA
sd disk106-13	msg12-02	disk106	15799296	1316608	1/0	c2t5d9	ENA
sd disk110-13	msg12-02	disk110	15799296	1316608	2/0	c2t5d13	ENA
sd disk114-13	msg12-02	disk114	15799296	1316608	3/0	c2t5d17	ENA
sd disk118-13	msg12-02	disk118	15799296	1316608	4/0	c2t5d21	ENA
sd disk122-13	msg12-02	disk122	15799296	1316608	5/0	c2t5d25	ENA
sd disk126-13	msg12-02	disk126	15799296	1316608	6/0	c2t5d29	ENA
sd disk104-13	msg12-02	disk104	15799296	1316608	7/0	c4t4d7	ENA
sd disk108-13	msg12-02	disk108	15799296	1316608	8/0	c4t4d11	ENA
sd disk112-13	msg12-02	disk112	15799296	1316608	9/0	c4t4d15	ENA
sd disk116-13	msg12-02	disk116	15799296	1316608	10/0	c4t4d19	ENA
sd disk120-13	msg12-02	disk120	15799296	1316608	11/0	c4t4d23	ENA
sd disk124-13	msg12-02	disk124	15799296	1316608	12/0	c4t4d27	ENA
sd disk128-13	msg12-02	disk128	15799296	1316608	13/0	c4t4d31	ENA
pl msgl2-01	msgl2	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-11	msg12-01	disk02	13166080	1316608	0/0	c1t5d5	ENA
sd disk06-11	msg12-01	disk06	13166080	1316608	1/0	c1t5d9	ENA
sd disk10-11	msg12-01	disk10	13166080	1316608	2/0	c1t5d13	ENA
sd disk14-11	msg12-01	disk14	13166080	1316608	3/0	c1t5d17	ENA
sd disk18-11	msg12-01	disk18	13166080	1316608	4/0	c1t5d21	ENA
sd disk22-11	msg12-01	disk22	13166080	1316608	5/0	c1t5d25	ENA
sd disk26-11	msg12-01	disk26	13166080	1316608	6/0	c1t5d29	ENA
sd disk04-11	msg12-01	disk04	13166080	1316608	7/0	c3t4d7	ENA
sd disk08-11	msg12-01	disk08	13166080	1316608	8/0	c3t4d11	ENA
sd disk12-11	msg12-01	disk12	13166080	1316608	9/0	c3t4d15	ENA
sd disk16-11	msg12-01	disk16	13166080	1316608	10/0	c3t4d19	ENA

sd disk20-11	msg12-01	disk20	13166080	1316608	11/0	c3t4d23	ENA
sd disk24-11	msg12-01	disk24	13166080	1316608	12/0	c3t4d27	ENA
sd disk28-11	msg12-01	disk28	13166080	1316608	13/0	c3t4d31	ENA
v msg13	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg13-01	msg13	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-07	msg13-01	disk02	7899648	1316608	0/0	c1t5d5	ENA
sd disk06-07	msg13-01	disk06	7899648	1316608	1/0	c1t5d9	ENA
sd disk10-07	msg13-01	disk10	7899648	1316608	2/0	c1t5d13	ENA
sd disk14-07	msg13-01	disk14	7899648	1316608	3/0	c1t5d17	ENA
sd disk18-07	msg13-01	disk18	7899648	1316608	4/0	c1t5d21	ENA
sd disk22-07	msg13-01	disk22	7899648	1316608	5/0	c1t5d25	ENA
sd disk26-07	msg13-01	disk26	7899648	1316608	6/0	c1t5d29	ENA
sd disk04-07	msg13-01	disk04	7899648	1316608	7/0	c3t4d7	ENA
sd disk08-07	msg13-01	disk08	7899648	1316608	8/0	c3t4d11	ENA
sd disk12-07	msg13-01	disk12	7899648	1316608	9/0	c3t4d15	ENA
sd disk16-07	msg13-01	disk16	7899648	1316608	10/0	c3t4d19	ENA
sd disk20-07	msg13-01	disk20	7899648	1316608	11/0	c3t4d23	ENA
sd disk24-07	msg13-01	disk24	7899648	1316608	12/0	c3t4d27	ENA
sd disk28-07	msg13-01	disk28	7899648	1316608	13/0	c3t4d31	ENA
pl msg13-02	msg13	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-25	msg13-02	disk102	31598592	1316608	0/0	c2t5d5	ENA
sd disk106-25	msg13-02	disk106	31598592	1316608	1/0	c2t5d9	ENA
sd disk110-25	msg13-02	disk110	31598592	1316608	2/0	c2t5d13	ENA
sd disk114-25	msg13-02	disk114	31598592	1316608	3/0	c2t5d17	ENA
sd disk118-25	msg13-02	disk118	31598592	1316608	4/0	c2t5d21	ENA
sd disk122-25	msg13-02	disk122	31598592	1316608	5/0	c2t5d25	ENA
sd disk126-25	msg13-02	disk126	31598592	1316608	6/0	c2t5d29	ENA
sd disk104-25	msg13-02	disk104	31598592	1316608	7/0	c4t4d7	ENA
sd disk108-25	msg13-02	disk108	31598592	1316608	8/0	c4t4d11	ENA
sd disk112-25	msg13-02	disk112	31598592	1316608	9/0	c4t4d15	ENA
sd disk116-25	msg13-02	disk116	31598592	1316608	10/0	c4t4d19	ENA
sd disk120-25	msg13-02	disk120	31598592	1316608	11/0	c4t4d23	ENA
sd disk124-25	msg13-02	disk124	31598592	1316608	12/0	c4t4d27	ENA
sd disk128-25	msg13-02	disk128	31598592	1316608	13/0	c4t4d31	ENA
v msg14	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg14-02	msg14	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-22	msg14-02	disk102	27648768	1316608	0/0	c2t5d5	ENA
sd disk106-22	msg14-02	disk106	27648768	1316608	1/0	c2t5d9	ENA
sd disk110-22	msg14-02	disk110	27648768	1316608	2/0	c2t5d13	ENA
sd disk114-22	msg14-02	disk114	27648768	1316608	3/0	c2t5d17	ENA
sd disk118-22	msg14-02	disk118	27648768	1316608	4/0	c2t5d21	ENA
sd disk122-22	msg14-02	disk122	27648768	1316608	5/0	c2t5d25	ENA
sd disk126-22	msg14-02	disk126	27648768	1316608	6/0	c2t5d29	ENA
sd disk104-22	msg14-02	disk104	27648768	1316608	7/0	c4t4d7	ENA
sd disk108-22	msg14-02	disk108	27648768	1316608	8/0	c4t4d11	ENA
sd disk112-22	msg14-02	disk112	27648768	1316608	9/0	c4t4d15	ENA
sd disk116-22	msg14-02	disk116	27648768	1316608	10/0	c4t4d19	ENA
sd disk120-22	msg14-02	disk120	27648768	1316608	11/0	c4t4d23	ENA
sd disk124-22	msg14-02	disk124	27648768	1316608	12/0	c4t4d27	ENA
sd disk128-22	msg14-02	disk128	27648768	1316608	13/0	c4t4d31	ENA
pl msg14-01	msg14	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-24	msg14-01	disk02	30281984	1316608	0/0	c1t5d5	ENA
sd disk06-24	msg14-01	disk06	30281984	1316608	1/0	c1t5d9	ENA
sd disk10-24	msg14-01	disk10	30281984	1316608	2/0	c1t5d13	ENA
sd disk14-24	msg14-01	disk14	30281984	1316608	3/0	c1t5d17	ENA
sd disk18-24	msg14-01	disk18	30281984	1316608	4/0	c1t5d21	ENA
sd disk22-24	msg14-01	disk22	30281984	1316608	5/0	c1t5d25	ENA
sd disk26-24	msg14-01	disk26	30281984	1316608	6/0	c1t5d29	ENA
sd disk04-24	msg14-01	disk04	30281984	1316608	7/0	c3t4d7	ENA
sd disk08-24	msg14-01	disk08	30281984	1316608	8/0	c3t4d11	ENA
sd disk12-24	msg14-01	disk12	30281984	1316608	9/0	c3t4d15	ENA
sd disk16-24	msg14-01	disk16	30281984	1316608	10/0	c3t4d19	ENA
sd disk20-24	msg14-01	disk20	30281984	1316608	11/0	c3t4d23	ENA
sd disk24-24	msg14-01	disk24	30281984	1316608	12/0	c3t4d27	ENA
sd disk28-24	msg14-01	disk28	30281984	1316608	13/0	c3t4d31	ENA
v msg15	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg15-02	msg15	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW

sd	disk102-06	msg15-02	disk102	6583040	1316608	0/0	c2t5d5	ENA
sd	disk106-06	msg15-02	disk106	6583040	1316608	1/0	c2t5d9	ENA
sd	disk110-06	msg15-02	disk110	6583040	1316608	2/0	c2t5d13	ENA
sd	disk114-06	msg15-02	disk114	6583040	1316608	3/0	c2t5d17	ENA
sd	disk118-06	msg15-02	disk118	6583040	1316608	4/0	c2t5d21	ENA
sd	disk122-06	msg15-02	disk122	6583040	1316608	5/0	c2t5d25	ENA
sd	disk126-06	msg15-02	disk126	6583040	1316608	6/0	c2t5d29	ENA
sd	disk104-06	msg15-02	disk104	6583040	1316608	7/0	c4t4d7	ENA
sd	disk108-06	msg15-02	disk108	6583040	1316608	8/0	c4t4d11	ENA
sd	disk112-06	msg15-02	disk112	6583040	1316608	9/0	c4t4d15	ENA
sd	disk116-06	msg15-02	disk116	6583040	1316608	10/0	c4t4d19	ENA
sd	disk120-06	msg15-02	disk120	6583040	1316608	11/0	c4t4d23	ENA
sd	disk124-06	msg15-02	disk124	6583040	1316608	12/0	c4t4d27	ENA
sd	disk128-06	msg15-02	disk128	6583040	1316608	13/0	c4t4d31	ENA
pl	msg15-01	msg15	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-08	msg15-01	disk02	9216256	1316608	0/0	c1t5d5	ENA
sd	disk06-08	msg15-01	disk06	9216256	1316608	1/0	c1t5d9	ENA
sd	disk10-08	msg15-01	disk10	9216256	1316608	2/0	c1t5d13	ENA
sd	disk14-08	msg15-01	disk14	9216256	1316608	3/0	c1t5d17	ENA
sd	disk18-08	msg15-01	disk18	9216256	1316608	4/0	c1t5d21	ENA
sd	disk22-08	msg15-01	disk22	9216256	1316608	5/0	c1t5d25	ENA
sd	disk26-08	msg15-01	disk26	9216256	1316608	6/0	c1t5d29	ENA
sd	disk04-08	msg15-01	disk04	9216256	1316608	7/0	c3t4d7	ENA
sd	disk08-08	msg15-01	disk08	9216256	1316608	8/0	c3t4d11	ENA
sd	disk12-08	msg15-01	disk12	9216256	1316608	9/0	c3t4d15	ENA
sd	disk16-08	msg15-01	disk16	9216256	1316608	10/0	c3t4d19	ENA
sd	disk20-08	msg15-01	disk20	9216256	1316608	11/0	c3t4d23	ENA
sd	disk24-08	msg15-01	disk24	9216256	1316608	12/0	c3t4d27	ENA
sd	disk28-08	msg15-01	disk28	9216256	1316608	13/0	c3t4d31	ENA
v	msg16	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg16-02	msg16	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-11	msg16-02	disk102	13166080	1316608	0/0	c2t5d5	ENA
sd	disk106-11	msg16-02	disk106	13166080	1316608	1/0	c2t5d9	ENA
sd	disk110-11	msg16-02	disk110	13166080	1316608	2/0	c2t5d13	ENA
sd	disk114-11	msg16-02	disk114	13166080	1316608	3/0	c2t5d17	ENA
sd	disk118-11	msg16-02	disk118	13166080	1316608	4/0	c2t5d21	ENA
sd	disk122-11	msg16-02	disk122	13166080	1316608	5/0	c2t5d25	ENA
sd	disk126-11	msg16-02	disk126	13166080	1316608	6/0	c2t5d29	ENA
sd	disk104-11	msg16-02	disk104	13166080	1316608	7/0	c4t4d7	ENA
sd	disk108-11	msg16-02	disk108	13166080	1316608	8/0	c4t4d11	ENA
sd	disk112-11	msg16-02	disk112	13166080	1316608	9/0	c4t4d15	ENA
sd	disk116-11	msg16-02	disk116	13166080	1316608	10/0	c4t4d19	ENA
sd	disk120-11	msg16-02	disk120	13166080	1316608	11/0	c4t4d23	ENA
sd	disk124-11	msg16-02	disk124	13166080	1316608	12/0	c4t4d27	ENA
sd	disk128-11	msg16-02	disk128	13166080	1316608	13/0	c4t4d31	ENA
pl	msg16-01	msg16	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-03	msg16-01	disk02	2633216	1316608	0/0	c1t5d5	ENA
sd	disk06-03	msg16-01	disk06	2633216	1316608	1/0	c1t5d9	ENA
sd	disk10-03	msg16-01	disk10	2633216	1316608	2/0	c1t5d13	ENA
sd	disk14-03	msg16-01	disk14	2633216	1316608	3/0	c1t5d17	ENA
sd	disk18-03	msg16-01	disk18	2633216	1316608	4/0	c1t5d21	ENA
sd	disk22-03	msg16-01	disk22	2633216	1316608	5/0	c1t5d25	ENA
sd	disk26-03	msg16-01	disk26	2633216	1316608	6/0	c1t5d29	ENA
sd	disk04-03	msg16-01	disk04	2633216	1316608	7/0	c3t4d7	ENA
sd	disk08-03	msg16-01	disk08	2633216	1316608	8/0	c3t4d11	ENA
sd	disk12-03	msg16-01	disk12	2633216	1316608	9/0	c3t4d15	ENA
sd	disk16-03	msg16-01	disk16	2633216	1316608	10/0	c3t4d19	ENA
sd	disk20-03	msg16-01	disk20	2633216	1316608	11/0	c3t4d23	ENA
sd	disk24-03	msg16-01	disk24	2633216	1316608	12/0	c3t4d27	ENA
sd	disk28-03	msg16-01	disk28	2633216	1316608	13/0	c3t4d31	ENA
v	msg17	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg17-01	msg17	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-22	msg17-01	disk02	27648768	1316608	0/0	c1t5d5	ENA
sd	disk06-22	msg17-01	disk06	27648768	1316608	1/0	c1t5d9	ENA
sd	disk10-22	msg17-01	disk10	27648768	1316608	2/0	c1t5d13	ENA
sd	disk14-22	msg17-01	disk14	27648768	1316608	3/0	c1t5d17	ENA
sd	disk18-22	msg17-01	disk18	27648768	1316608	4/0	c1t5d21	ENA
sd	disk22-22	msg17-01	disk22	27648768	1316608	5/0	c1t5d25	ENA

sd disk26-22	msg17-01	disk26	27648768	1316608	6/0	c1t5d29	ENA
sd disk04-22	msg17-01	disk04	27648768	1316608	7/0	c3t4d7	ENA
sd disk08-22	msg17-01	disk08	27648768	1316608	8/0	c3t4d11	ENA
sd disk12-22	msg17-01	disk12	27648768	1316608	9/0	c3t4d15	ENA
sd disk16-22	msg17-01	disk16	27648768	1316608	10/0	c3t4d19	ENA
sd disk20-22	msg17-01	disk20	27648768	1316608	11/0	c3t4d23	ENA
sd disk24-22	msg17-01	disk24	27648768	1316608	12/0	c3t4d27	ENA
sd disk28-22	msg17-01	disk28	27648768	1316608	13/0	c3t4d31	ENA
pl msg17-02	msg17	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-17	msg17-02	disk102	21065728	1316608	0/0	c2t5d5	ENA
sd disk106-17	msg17-02	disk106	21065728	1316608	1/0	c2t5d9	ENA
sd disk110-17	msg17-02	disk110	21065728	1316608	2/0	c2t5d13	ENA
sd disk114-17	msg17-02	disk114	21065728	1316608	3/0	c2t5d17	ENA
sd disk118-17	msg17-02	disk118	21065728	1316608	4/0	c2t5d21	ENA
sd disk122-17	msg17-02	disk122	21065728	1316608	5/0	c2t5d25	ENA
sd disk126-17	msg17-02	disk126	21065728	1316608	6/0	c2t5d29	ENA
sd disk104-17	msg17-02	disk104	21065728	1316608	7/0	c4t4d7	ENA
sd disk108-17	msg17-02	disk108	21065728	1316608	8/0	c4t4d11	ENA
sd disk112-17	msg17-02	disk112	21065728	1316608	9/0	c4t4d15	ENA
sd disk116-17	msg17-02	disk116	21065728	1316608	10/0	c4t4d19	ENA
sd disk120-17	msg17-02	disk120	21065728	1316608	11/0	c4t4d23	ENA
sd disk124-17	msg17-02	disk124	21065728	1316608	12/0	c4t4d27	ENA
sd disk128-17	msg17-02	disk128	21065728	1316608	13/0	c4t4d31	ENA
v msg18	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg18-02	msg18	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-16	msg18-02	disk102	19749120	1316608	0/0	c2t5d5	ENA
sd disk106-16	msg18-02	disk106	19749120	1316608	1/0	c2t5d9	ENA
sd disk110-16	msg18-02	disk110	19749120	1316608	2/0	c2t5d13	ENA
sd disk114-16	msg18-02	disk114	19749120	1316608	3/0	c2t5d17	ENA
sd disk118-16	msg18-02	disk118	19749120	1316608	4/0	c2t5d21	ENA
sd disk122-16	msg18-02	disk122	19749120	1316608	5/0	c2t5d25	ENA
sd disk126-16	msg18-02	disk126	19749120	1316608	6/0	c2t5d29	ENA
sd disk104-16	msg18-02	disk104	19749120	1316608	7/0	c4t4d7	ENA
sd disk108-16	msg18-02	disk108	19749120	1316608	8/0	c4t4d11	ENA
sd disk112-16	msg18-02	disk112	19749120	1316608	9/0	c4t4d15	ENA
sd disk116-16	msg18-02	disk116	19749120	1316608	10/0	c4t4d19	ENA
sd disk120-16	msg18-02	disk120	19749120	1316608	11/0	c4t4d23	ENA
sd disk124-16	msg18-02	disk124	19749120	1316608	12/0	c4t4d27	ENA
sd disk128-16	msg18-02	disk128	19749120	1316608	13/0	c4t4d31	ENA
pl msg18-01	msg18	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-25	msg18-01	disk02	31598592	1316608	0/0	c1t5d5	ENA
sd disk06-25	msg18-01	disk06	31598592	1316608	1/0	c1t5d9	ENA
sd disk10-25	msg18-01	disk10	31598592	1316608	2/0	c1t5d13	ENA
sd disk14-25	msg18-01	disk14	31598592	1316608	3/0	c1t5d17	ENA
sd disk18-25	msg18-01	disk18	31598592	1316608	4/0	c1t5d21	ENA
sd disk22-25	msg18-01	disk22	31598592	1316608	5/0	c1t5d25	ENA
sd disk26-25	msg18-01	disk26	31598592	1316608	6/0	c1t5d29	ENA
sd disk04-25	msg18-01	disk04	31598592	1316608	7/0	c3t4d7	ENA
sd disk08-25	msg18-01	disk08	31598592	1316608	8/0	c3t4d11	ENA
sd disk12-25	msg18-01	disk12	31598592	1316608	9/0	c3t4d15	ENA
sd disk16-25	msg18-01	disk16	31598592	1316608	10/0	c3t4d19	ENA
sd disk20-25	msg18-01	disk20	31598592	1316608	11/0	c3t4d23	ENA
sd disk24-25	msg18-01	disk24	31598592	1316608	12/0	c3t4d27	ENA
sd disk28-25	msg18-01	disk28	31598592	1316608	13/0	c3t4d31	ENA
v msg19	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg19-01	msg19	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-21	msg19-01	disk02	26332160	1316608	0/0	c1t5d5	ENA
sd disk06-21	msg19-01	disk06	26332160	1316608	1/0	c1t5d9	ENA
sd disk10-21	msg19-01	disk10	26332160	1316608	2/0	c1t5d13	ENA
sd disk14-21	msg19-01	disk14	26332160	1316608	3/0	c1t5d17	ENA
sd disk18-21	msg19-01	disk18	26332160	1316608	4/0	c1t5d21	ENA
sd disk22-21	msg19-01	disk22	26332160	1316608	5/0	c1t5d25	ENA
sd disk26-21	msg19-01	disk26	26332160	1316608	6/0	c1t5d29	ENA
sd disk04-21	msg19-01	disk04	26332160	1316608	7/0	c3t4d7	ENA
sd disk08-21	msg19-01	disk08	26332160	1316608	8/0	c3t4d11	ENA
sd disk12-21	msg19-01	disk12	26332160	1316608	9/0	c3t4d15	ENA
sd disk16-21	msg19-01	disk16	26332160	1316608	10/0	c3t4d19	ENA
sd disk20-21	msg19-01	disk20	26332160	1316608	11/0	c3t4d23	ENA

sd disk24-21	msg19-01	disk24	26332160	1316608	12/0	c3t4d27	ENA
sd disk28-21	msg19-01	disk28	26332160	1316608	13/0	c3t4d31	ENA
pl msg19-02	msg19	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-10	msg19-02	disk102	11849472	1316608	0/0	c2t5d5	ENA
sd disk106-10	msg19-02	disk106	11849472	1316608	1/0	c2t5d9	ENA
sd disk110-10	msg19-02	disk110	11849472	1316608	2/0	c2t5d13	ENA
sd disk114-10	msg19-02	disk114	11849472	1316608	3/0	c2t5d17	ENA
sd disk118-10	msg19-02	disk118	11849472	1316608	4/0	c2t5d21	ENA
sd disk122-10	msg19-02	disk122	11849472	1316608	5/0	c2t5d25	ENA
sd disk126-10	msg19-02	disk126	11849472	1316608	6/0	c2t5d29	ENA
sd disk104-10	msg19-02	disk104	11849472	1316608	7/0	c4t4d7	ENA
sd disk108-10	msg19-02	disk108	11849472	1316608	8/0	c4t4d11	ENA
sd disk112-10	msg19-02	disk112	11849472	1316608	9/0	c4t4d15	ENA
sd disk116-10	msg19-02	disk116	11849472	1316608	10/0	c4t4d19	ENA
sd disk120-10	msg19-02	disk120	11849472	1316608	11/0	c4t4d23	ENA
sd disk124-10	msg19-02	disk124	11849472	1316608	12/0	c4t4d27	ENA
sd disk128-10	msg19-02	disk128	11849472	1316608	13/0	c4t4d31	ENA
v msg20	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg20-02	msg20	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-23	msg20-02	disk102	28965376	1316608	0/0	c2t5d5	ENA
sd disk106-23	msg20-02	disk106	28965376	1316608	1/0	c2t5d9	ENA
sd disk110-23	msg20-02	disk110	28965376	1316608	2/0	c2t5d13	ENA
sd disk114-23	msg20-02	disk114	28965376	1316608	3/0	c2t5d17	ENA
sd disk118-23	msg20-02	disk118	28965376	1316608	4/0	c2t5d21	ENA
sd disk122-23	msg20-02	disk122	28965376	1316608	5/0	c2t5d25	ENA
sd disk126-23	msg20-02	disk126	28965376	1316608	6/0	c2t5d29	ENA
sd disk104-23	msg20-02	disk104	28965376	1316608	7/0	c4t4d7	ENA
sd disk108-23	msg20-02	disk108	28965376	1316608	8/0	c4t4d11	ENA
sd disk112-23	msg20-02	disk112	28965376	1316608	9/0	c4t4d15	ENA
sd disk116-23	msg20-02	disk116	28965376	1316608	10/0	c4t4d19	ENA
sd disk120-23	msg20-02	disk120	28965376	1316608	11/0	c4t4d23	ENA
sd disk124-23	msg20-02	disk124	28965376	1316608	12/0	c4t4d27	ENA
sd disk128-23	msg20-02	disk128	28965376	1316608	13/0	c4t4d31	ENA
pl msg20-01	msg20	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-19	msg20-01	disk02	23698944	1316608	0/0	c1t5d5	ENA
sd disk06-19	msg20-01	disk06	23698944	1316608	1/0	c1t5d9	ENA
sd disk10-19	msg20-01	disk10	23698944	1316608	2/0	c1t5d13	ENA
sd disk14-19	msg20-01	disk14	23698944	1316608	3/0	c1t5d17	ENA
sd disk18-19	msg20-01	disk18	23698944	1316608	4/0	c1t5d21	ENA
sd disk22-19	msg20-01	disk22	23698944	1316608	5/0	c1t5d25	ENA
sd disk26-19	msg20-01	disk26	23698944	1316608	6/0	c1t5d29	ENA
sd disk04-19	msg20-01	disk04	23698944	1316608	7/0	c3t4d7	ENA
sd disk08-19	msg20-01	disk08	23698944	1316608	8/0	c3t4d11	ENA
sd disk12-19	msg20-01	disk12	23698944	1316608	9/0	c3t4d15	ENA
sd disk16-19	msg20-01	disk16	23698944	1316608	10/0	c3t4d19	ENA
sd disk20-19	msg20-01	disk20	23698944	1316608	11/0	c3t4d23	ENA
sd disk24-19	msg20-01	disk24	23698944	1316608	12/0	c3t4d27	ENA
sd disk28-19	msg20-01	disk28	23698944	1316608	13/0	c3t4d31	ENA
v msg21	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg21-01	msg21	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-20	msg21-01	disk02	25015552	1316608	0/0	c1t5d5	ENA
sd disk06-20	msg21-01	disk06	25015552	1316608	1/0	c1t5d9	ENA
sd disk10-20	msg21-01	disk10	25015552	1316608	2/0	c1t5d13	ENA
sd disk14-20	msg21-01	disk14	25015552	1316608	3/0	c1t5d17	ENA
sd disk18-20	msg21-01	disk18	25015552	1316608	4/0	c1t5d21	ENA
sd disk22-20	msg21-01	disk22	25015552	1316608	5/0	c1t5d25	ENA
sd disk26-20	msg21-01	disk26	25015552	1316608	6/0	c1t5d29	ENA
sd disk04-20	msg21-01	disk04	25015552	1316608	7/0	c3t4d7	ENA
sd disk08-20	msg21-01	disk08	25015552	1316608	8/0	c3t4d11	ENA
sd disk12-20	msg21-01	disk12	25015552	1316608	9/0	c3t4d15	ENA
sd disk16-20	msg21-01	disk16	25015552	1316608	10/0	c3t4d19	ENA
sd disk20-20	msg21-01	disk20	25015552	1316608	11/0	c3t4d23	ENA
sd disk24-20	msg21-01	disk24	25015552	1316608	12/0	c3t4d27	ENA
sd disk28-20	msg21-01	disk28	25015552	1316608	13/0	c3t4d31	ENA
pl msg21-02	msg21	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-20	msg21-02	disk102	25015552	1316608	0/0	c2t5d5	ENA
sd disk106-20	msg21-02	disk106	25015552	1316608	1/0	c2t5d9	ENA
sd disk110-20	msg21-02	disk110	25015552	1316608	2/0	c2t5d13	ENA

sd disk114-20	msg21-02	disk114	25015552	1316608	3/0	c2t5d17	ENA
sd disk118-20	msg21-02	disk118	25015552	1316608	4/0	c2t5d21	ENA
sd disk122-20	msg21-02	disk122	25015552	1316608	5/0	c2t5d25	ENA
sd disk126-20	msg21-02	disk126	25015552	1316608	6/0	c2t5d29	ENA
sd disk104-20	msg21-02	disk104	25015552	1316608	7/0	c4t4d7	ENA
sd disk108-20	msg21-02	disk108	25015552	1316608	8/0	c4t4d11	ENA
sd disk112-20	msg21-02	disk112	25015552	1316608	9/0	c4t4d15	ENA
sd disk116-20	msg21-02	disk116	25015552	1316608	10/0	c4t4d19	ENA
sd disk120-20	msg21-02	disk120	25015552	1316608	11/0	c4t4d23	ENA
sd disk124-20	msg21-02	disk124	25015552	1316608	12/0	c4t4d27	ENA
sd disk128-20	msg21-02	disk128	25015552	1316608	13/0	c4t4d31	ENA
v msg22	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg22-01	msg22	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-18	msg22-01	disk02	22382336	1316608	0/0	c1t5d5	ENA
sd disk06-18	msg22-01	disk06	22382336	1316608	1/0	c1t5d9	ENA
sd disk10-18	msg22-01	disk10	22382336	1316608	2/0	c1t5d13	ENA
sd disk14-18	msg22-01	disk14	22382336	1316608	3/0	c1t5d17	ENA
sd disk18-18	msg22-01	disk18	22382336	1316608	4/0	c1t5d21	ENA
sd disk22-18	msg22-01	disk22	22382336	1316608	5/0	c1t5d25	ENA
sd disk26-18	msg22-01	disk26	22382336	1316608	6/0	c1t5d29	ENA
sd disk04-18	msg22-01	disk04	22382336	1316608	7/0	c3t4d7	ENA
sd disk08-18	msg22-01	disk08	22382336	1316608	8/0	c3t4d11	ENA
sd disk12-18	msg22-01	disk12	22382336	1316608	9/0	c3t4d15	ENA
sd disk16-18	msg22-01	disk16	22382336	1316608	10/0	c3t4d19	ENA
sd disk20-18	msg22-01	disk20	22382336	1316608	11/0	c3t4d23	ENA
sd disk24-18	msg22-01	disk24	22382336	1316608	12/0	c3t4d27	ENA
sd disk28-18	msg22-01	disk28	22382336	1316608	13/0	c3t4d31	ENA
pl msg22-02	msg22	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-26	msg22-02	disk102	32915200	1316608	0/0	c2t5d5	ENA
sd disk106-26	msg22-02	disk106	32915200	1316608	1/0	c2t5d9	ENA
sd disk110-26	msg22-02	disk110	32915200	1316608	2/0	c2t5d13	ENA
sd disk114-26	msg22-02	disk114	32915200	1316608	3/0	c2t5d17	ENA
sd disk118-26	msg22-02	disk118	32915200	1316608	4/0	c2t5d21	ENA
sd disk122-26	msg22-02	disk122	32915200	1316608	5/0	c2t5d25	ENA
sd disk126-26	msg22-02	disk126	32915200	1316608	6/0	c2t5d29	ENA
sd disk104-26	msg22-02	disk104	32915200	1316608	7/0	c4t4d7	ENA
sd disk108-26	msg22-02	disk108	32915200	1316608	8/0	c4t4d11	ENA
sd disk112-26	msg22-02	disk112	32915200	1316608	9/0	c4t4d15	ENA
sd disk116-26	msg22-02	disk116	32915200	1316608	10/0	c4t4d19	ENA
sd disk120-26	msg22-02	disk120	32915200	1316608	11/0	c4t4d23	ENA
sd disk124-26	msg22-02	disk124	32915200	1316608	12/0	c4t4d27	ENA
sd disk128-26	msg22-02	disk128	32915200	1316608	13/0	c4t4d31	ENA
v msg23	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg23-02	msg23	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-27	msg23-02	disk102	34231808	1316608	0/0	c2t5d5	ENA
sd disk106-27	msg23-02	disk106	34231808	1316608	1/0	c2t5d9	ENA
sd disk110-27	msg23-02	disk110	34231808	1316608	2/0	c2t5d13	ENA
sd disk114-27	msg23-02	disk114	34231808	1316608	3/0	c2t5d17	ENA
sd disk118-27	msg23-02	disk118	34231808	1316608	4/0	c2t5d21	ENA
sd disk122-27	msg23-02	disk122	34231808	1316608	5/0	c2t5d25	ENA
sd disk126-27	msg23-02	disk126	34231808	1316608	6/0	c2t5d29	ENA
sd disk104-27	msg23-02	disk104	34231808	1316608	7/0	c4t4d7	ENA
sd disk108-27	msg23-02	disk108	34231808	1316608	8/0	c4t4d11	ENA
sd disk112-27	msg23-02	disk112	34231808	1316608	9/0	c4t4d15	ENA
sd disk116-27	msg23-02	disk116	34231808	1316608	10/0	c4t4d19	ENA
sd disk120-27	msg23-02	disk120	34231808	1316608	11/0	c4t4d23	ENA
sd disk124-27	msg23-02	disk124	34231808	1316608	12/0	c4t4d27	ENA
sd disk128-27	msg23-02	disk128	34231808	1316608	13/0	c4t4d31	ENA
pl msg23-01	msg23	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-26	msg23-01	disk02	32915200	1316608	0/0	c1t5d5	ENA
sd disk06-26	msg23-01	disk06	32915200	1316608	1/0	c1t5d9	ENA
sd disk10-26	msg23-01	disk10	32915200	1316608	2/0	c1t5d13	ENA
sd disk14-26	msg23-01	disk14	32915200	1316608	3/0	c1t5d17	ENA
sd disk18-26	msg23-01	disk18	32915200	1316608	4/0	c1t5d21	ENA
sd disk22-26	msg23-01	disk22	32915200	1316608	5/0	c1t5d25	ENA
sd disk26-26	msg23-01	disk26	32915200	1316608	6/0	c1t5d29	ENA
sd disk04-26	msg23-01	disk04	32915200	1316608	7/0	c3t4d7	ENA
sd disk08-26	msg23-01	disk08	32915200	1316608	8/0	c3t4d11	ENA

sd disk12-26	msg23-01	disk12	32915200	1316608	9/0	c3t4d15	ENA
sd disk16-26	msg23-01	disk16	32915200	1316608	10/0	c3t4d19	ENA
sd disk20-26	msg23-01	disk20	32915200	1316608	11/0	c3t4d23	ENA
sd disk24-26	msg23-01	disk24	32915200	1316608	12/0	c3t4d27	ENA
sd disk28-26	msg23-01	disk28	32915200	1316608	13/0	c3t4d31	ENA
v msg24	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg24-01	msg24	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-28	msg24-01	disk02	35548416	1316608	0/0	c1t5d5	ENA
sd disk06-28	msg24-01	disk06	35548416	1316608	1/0	c1t5d9	ENA
sd disk10-28	msg24-01	disk10	35548416	1316608	2/0	c1t5d13	ENA
sd disk14-28	msg24-01	disk14	35548416	1316608	3/0	c1t5d17	ENA
sd disk18-28	msg24-01	disk18	35548416	1316608	4/0	c1t5d21	ENA
sd disk22-28	msg24-01	disk22	35548416	1316608	5/0	c1t5d25	ENA
sd disk26-28	msg24-01	disk26	35548416	1316608	6/0	c1t5d29	ENA
sd disk04-28	msg24-01	disk04	35548416	1316608	7/0	c3t4d7	ENA
sd disk08-28	msg24-01	disk08	35548416	1316608	8/0	c3t4d11	ENA
sd disk12-28	msg24-01	disk12	35548416	1316608	9/0	c3t4d15	ENA
sd disk16-28	msg24-01	disk16	35548416	1316608	10/0	c3t4d19	ENA
sd disk20-28	msg24-01	disk20	35548416	1316608	11/0	c3t4d23	ENA
sd disk24-28	msg24-01	disk24	35548416	1316608	12/0	c3t4d27	ENA
sd disk28-28	msg24-01	disk28	35548416	1316608	13/0	c3t4d31	ENA
pl msg24-02	msg24	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-29	msg24-02	disk102	36865024	1316608	0/0	c2t5d5	ENA
sd disk106-29	msg24-02	disk106	36865024	1316608	1/0	c2t5d9	ENA
sd disk110-29	msg24-02	disk110	36865024	1316608	2/0	c2t5d13	ENA
sd disk114-29	msg24-02	disk114	36865024	1316608	3/0	c2t5d17	ENA
sd disk118-29	msg24-02	disk118	36865024	1316608	4/0	c2t5d21	ENA
sd disk122-29	msg24-02	disk122	36865024	1316608	5/0	c2t5d25	ENA
sd disk126-29	msg24-02	disk126	36865024	1316608	6/0	c2t5d29	ENA
sd disk104-29	msg24-02	disk104	36865024	1316608	7/0	c4t4d7	ENA
sd disk108-29	msg24-02	disk108	36865024	1316608	8/0	c4t4d11	ENA
sd disk112-29	msg24-02	disk112	36865024	1316608	9/0	c4t4d15	ENA
sd disk116-29	msg24-02	disk116	36865024	1316608	10/0	c4t4d19	ENA
sd disk120-29	msg24-02	disk120	36865024	1316608	11/0	c4t4d23	ENA
sd disk124-29	msg24-02	disk124	36865024	1316608	12/0	c4t4d27	ENA
sd disk128-29	msg24-02	disk128	36865024	1316608	13/0	c4t4d31	ENA
v msg25	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg25-02	msg25	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-28	msg25-02	disk102	35548416	1316608	0/0	c2t5d5	ENA
sd disk106-28	msg25-02	disk106	35548416	1316608	1/0	c2t5d9	ENA
sd disk110-28	msg25-02	disk110	35548416	1316608	2/0	c2t5d13	ENA
sd disk114-28	msg25-02	disk114	35548416	1316608	3/0	c2t5d17	ENA
sd disk118-28	msg25-02	disk118	35548416	1316608	4/0	c2t5d21	ENA
sd disk122-28	msg25-02	disk122	35548416	1316608	5/0	c2t5d25	ENA
sd disk126-28	msg25-02	disk126	35548416	1316608	6/0	c2t5d29	ENA
sd disk104-28	msg25-02	disk104	35548416	1316608	7/0	c4t4d7	ENA
sd disk108-28	msg25-02	disk108	35548416	1316608	8/0	c4t4d11	ENA
sd disk112-28	msg25-02	disk112	35548416	1316608	9/0	c4t4d15	ENA
sd disk116-28	msg25-02	disk116	35548416	1316608	10/0	c4t4d19	ENA
sd disk120-28	msg25-02	disk120	35548416	1316608	11/0	c4t4d23	ENA
sd disk124-28	msg25-02	disk124	35548416	1316608	12/0	c4t4d27	ENA
sd disk128-28	msg25-02	disk128	35548416	1316608	13/0	c4t4d31	ENA
pl msg25-01	msg25	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-29	msg25-01	disk02	36865024	1316608	0/0	c1t5d5	ENA
sd disk06-29	msg25-01	disk06	36865024	1316608	1/0	c1t5d9	ENA
sd disk10-29	msg25-01	disk10	36865024	1316608	2/0	c1t5d13	ENA
sd disk14-29	msg25-01	disk14	36865024	1316608	3/0	c1t5d17	ENA
sd disk18-29	msg25-01	disk18	36865024	1316608	4/0	c1t5d21	ENA
sd disk22-29	msg25-01	disk22	36865024	1316608	5/0	c1t5d25	ENA
sd disk26-29	msg25-01	disk26	36865024	1316608	6/0	c1t5d29	ENA
sd disk04-29	msg25-01	disk04	36865024	1316608	7/0	c3t4d7	ENA
sd disk08-29	msg25-01	disk08	36865024	1316608	8/0	c3t4d11	ENA
sd disk12-29	msg25-01	disk12	36865024	1316608	9/0	c3t4d15	ENA
sd disk16-29	msg25-01	disk16	36865024	1316608	10/0	c3t4d19	ENA
sd disk20-29	msg25-01	disk20	36865024	1316608	11/0	c3t4d23	ENA
sd disk24-29	msg25-01	disk24	36865024	1316608	12/0	c3t4d27	ENA
sd disk28-29	msg25-01	disk28	36865024	1316608	13/0	c3t4d31	ENA

v	msg26	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg26-01	msg26	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-32	msg26-01	disk02	40814848	1316608	0/0	c1t5d5	ENA
sd	disk06-32	msg26-01	disk06	40814848	1316608	1/0	c1t5d9	ENA
sd	disk10-32	msg26-01	disk10	40814848	1316608	2/0	c1t5d13	ENA
sd	disk14-32	msg26-01	disk14	40814848	1316608	3/0	c1t5d17	ENA
sd	disk18-32	msg26-01	disk18	40814848	1316608	4/0	c1t5d21	ENA
sd	disk22-32	msg26-01	disk22	40814848	1316608	5/0	c1t5d25	ENA
sd	disk26-32	msg26-01	disk26	40814848	1316608	6/0	c1t5d29	ENA
sd	disk04-32	msg26-01	disk04	40814848	1316608	7/0	c3t4d7	ENA
sd	disk08-32	msg26-01	disk08	40814848	1316608	8/0	c3t4d11	ENA
sd	disk12-32	msg26-01	disk12	40814848	1316608	9/0	c3t4d15	ENA
sd	disk16-32	msg26-01	disk16	40814848	1316608	10/0	c3t4d19	ENA
sd	disk20-32	msg26-01	disk20	40814848	1316608	11/0	c3t4d23	ENA
sd	disk24-32	msg26-01	disk24	40814848	1316608	12/0	c3t4d27	ENA
sd	disk28-32	msg26-01	disk28	40814848	1316608	13/0	c3t4d31	ENA
pl	msg26-02	msg26	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-34	msg26-02	disk102	43448064	1316608	0/0	c2t5d5	ENA
sd	disk106-34	msg26-02	disk106	43448064	1316608	1/0	c2t5d9	ENA
sd	disk110-34	msg26-02	disk110	43448064	1316608	2/0	c2t5d13	ENA
sd	disk114-34	msg26-02	disk114	43448064	1316608	3/0	c2t5d17	ENA
sd	disk118-34	msg26-02	disk118	43448064	1316608	4/0	c2t5d21	ENA
sd	disk122-34	msg26-02	disk122	43448064	1316608	5/0	c2t5d25	ENA
sd	disk126-34	msg26-02	disk126	43448064	1316608	6/0	c2t5d29	ENA
sd	disk104-34	msg26-02	disk104	43448064	1316608	7/0	c4t4d7	ENA
sd	disk108-34	msg26-02	disk108	43448064	1316608	8/0	c4t4d11	ENA
sd	disk112-34	msg26-02	disk112	43448064	1316608	9/0	c4t4d15	ENA
sd	disk116-34	msg26-02	disk116	43448064	1316608	10/0	c4t4d19	ENA
sd	disk120-34	msg26-02	disk120	43448064	1316608	11/0	c4t4d23	ENA
sd	disk124-34	msg26-02	disk124	43448064	1316608	12/0	c4t4d27	ENA
sd	disk128-34	msg26-02	disk128	43448064	1316608	13/0	c4t4d31	ENA
v	msg27	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg27-01	msg27	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-30	msg27-01	disk02	38181632	1316608	0/0	c1t5d5	ENA
sd	disk06-30	msg27-01	disk06	38181632	1316608	1/0	c1t5d9	ENA
sd	disk10-30	msg27-01	disk10	38181632	1316608	2/0	c1t5d13	ENA
sd	disk14-30	msg27-01	disk14	38181632	1316608	3/0	c1t5d17	ENA
sd	disk18-30	msg27-01	disk18	38181632	1316608	4/0	c1t5d21	ENA
sd	disk22-30	msg27-01	disk22	38181632	1316608	5/0	c1t5d25	ENA
sd	disk26-30	msg27-01	disk26	38181632	1316608	6/0	c1t5d29	ENA
sd	disk04-30	msg27-01	disk04	38181632	1316608	7/0	c3t4d7	ENA
sd	disk08-30	msg27-01	disk08	38181632	1316608	8/0	c3t4d11	ENA
sd	disk12-30	msg27-01	disk12	38181632	1316608	9/0	c3t4d15	ENA
sd	disk16-30	msg27-01	disk16	38181632	1316608	10/0	c3t4d19	ENA
sd	disk20-30	msg27-01	disk20	38181632	1316608	11/0	c3t4d23	ENA
sd	disk24-30	msg27-01	disk24	38181632	1316608	12/0	c3t4d27	ENA
sd	disk28-30	msg27-01	disk28	38181632	1316608	13/0	c3t4d31	ENA
pl	msg27-02	msg27	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-32	msg27-02	disk102	40814848	1316608	0/0	c2t5d5	ENA
sd	disk106-32	msg27-02	disk106	40814848	1316608	1/0	c2t5d9	ENA
sd	disk110-32	msg27-02	disk110	40814848	1316608	2/0	c2t5d13	ENA
sd	disk114-32	msg27-02	disk114	40814848	1316608	3/0	c2t5d17	ENA
sd	disk118-32	msg27-02	disk118	40814848	1316608	4/0	c2t5d21	ENA
sd	disk122-32	msg27-02	disk122	40814848	1316608	5/0	c2t5d25	ENA
sd	disk126-32	msg27-02	disk126	40814848	1316608	6/0	c2t5d29	ENA
sd	disk104-32	msg27-02	disk104	40814848	1316608	7/0	c4t4d7	ENA
sd	disk108-32	msg27-02	disk108	40814848	1316608	8/0	c4t4d11	ENA
sd	disk112-32	msg27-02	disk112	40814848	1316608	9/0	c4t4d15	ENA
sd	disk116-32	msg27-02	disk116	40814848	1316608	10/0	c4t4d19	ENA
sd	disk120-32	msg27-02	disk120	40814848	1316608	11/0	c4t4d23	ENA
sd	disk124-32	msg27-02	disk124	40814848	1316608	12/0	c4t4d27	ENA
sd	disk128-32	msg27-02	disk128	40814848	1316608	13/0	c4t4d31	ENA
v	msg28	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg28-02	msg28	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-30	msg28-02	disk102	38181632	1316608	0/0	c2t5d5	ENA
sd	disk106-30	msg28-02	disk106	38181632	1316608	1/0	c2t5d9	ENA
sd	disk110-30	msg28-02	disk110	38181632	1316608	2/0	c2t5d13	ENA
sd	disk114-30	msg28-02	disk114	38181632	1316608	3/0	c2t5d17	ENA

sd disk118-30	msg28-02	disk118	38181632	1316608	4/0	c2t5d21	ENA
sd disk122-30	msg28-02	disk122	38181632	1316608	5/0	c2t5d25	ENA
sd disk126-30	msg28-02	disk126	38181632	1316608	6/0	c2t5d29	ENA
sd disk104-30	msg28-02	disk104	38181632	1316608	7/0	c4t4d7	ENA
sd disk108-30	msg28-02	disk108	38181632	1316608	8/0	c4t4d11	ENA
sd disk112-30	msg28-02	disk112	38181632	1316608	9/0	c4t4d15	ENA
sd disk116-30	msg28-02	disk116	38181632	1316608	10/0	c4t4d19	ENA
sd disk120-30	msg28-02	disk120	38181632	1316608	11/0	c4t4d23	ENA
sd disk124-30	msg28-02	disk124	38181632	1316608	12/0	c4t4d27	ENA
sd disk128-30	msg28-02	disk128	38181632	1316608	13/0	c4t4d31	ENA
pl msg28-01	msg28	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-31	msg28-01	disk02	39498240	1316608	0/0	c1t5d5	ENA
sd disk06-31	msg28-01	disk06	39498240	1316608	1/0	c1t5d9	ENA
sd disk10-31	msg28-01	disk10	39498240	1316608	2/0	c1t5d13	ENA
sd disk14-31	msg28-01	disk14	39498240	1316608	3/0	c1t5d17	ENA
sd disk18-31	msg28-01	disk18	39498240	1316608	4/0	c1t5d21	ENA
sd disk22-31	msg28-01	disk22	39498240	1316608	5/0	c1t5d25	ENA
sd disk26-31	msg28-01	disk26	39498240	1316608	6/0	c1t5d29	ENA
sd disk04-31	msg28-01	disk04	39498240	1316608	7/0	c3t4d7	ENA
sd disk08-31	msg28-01	disk08	39498240	1316608	8/0	c3t4d11	ENA
sd disk12-31	msg28-01	disk12	39498240	1316608	9/0	c3t4d15	ENA
sd disk16-31	msg28-01	disk16	39498240	1316608	10/0	c3t4d19	ENA
sd disk20-31	msg28-01	disk20	39498240	1316608	11/0	c3t4d23	ENA
sd disk24-31	msg28-01	disk24	39498240	1316608	12/0	c3t4d27	ENA
sd disk28-31	msg28-01	disk28	39498240	1316608	13/0	c3t4d31	ENA
v msg29	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg29-02	msg29	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-31	msg29-02	disk102	39498240	1316608	0/0	c2t5d5	ENA
sd disk106-31	msg29-02	disk106	39498240	1316608	1/0	c2t5d9	ENA
sd disk110-31	msg29-02	disk110	39498240	1316608	2/0	c2t5d13	ENA
sd disk114-31	msg29-02	disk114	39498240	1316608	3/0	c2t5d17	ENA
sd disk118-31	msg29-02	disk118	39498240	1316608	4/0	c2t5d21	ENA
sd disk122-31	msg29-02	disk122	39498240	1316608	5/0	c2t5d25	ENA
sd disk126-31	msg29-02	disk126	39498240	1316608	6/0	c2t5d29	ENA
sd disk104-31	msg29-02	disk104	39498240	1316608	7/0	c4t4d7	ENA
sd disk108-31	msg29-02	disk108	39498240	1316608	8/0	c4t4d11	ENA
sd disk112-31	msg29-02	disk112	39498240	1316608	9/0	c4t4d15	ENA
sd disk116-31	msg29-02	disk116	39498240	1316608	10/0	c4t4d19	ENA
sd disk120-31	msg29-02	disk120	39498240	1316608	11/0	c4t4d23	ENA
sd disk124-31	msg29-02	disk124	39498240	1316608	12/0	c4t4d27	ENA
sd disk128-31	msg29-02	disk128	39498240	1316608	13/0	c4t4d31	ENA
pl msg29-01	msg29	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-33	msg29-01	disk02	42131456	1316608	0/0	c1t5d5	ENA
sd disk06-33	msg29-01	disk06	42131456	1316608	1/0	c1t5d9	ENA
sd disk10-33	msg29-01	disk10	42131456	1316608	2/0	c1t5d13	ENA
sd disk14-33	msg29-01	disk14	42131456	1316608	3/0	c1t5d17	ENA
sd disk18-33	msg29-01	disk18	42131456	1316608	4/0	c1t5d21	ENA
sd disk22-33	msg29-01	disk22	42131456	1316608	5/0	c1t5d25	ENA
sd disk26-33	msg29-01	disk26	42131456	1316608	6/0	c1t5d29	ENA
sd disk04-33	msg29-01	disk04	42131456	1316608	7/0	c3t4d7	ENA
sd disk08-33	msg29-01	disk08	42131456	1316608	8/0	c3t4d11	ENA
sd disk12-33	msg29-01	disk12	42131456	1316608	9/0	c3t4d15	ENA
sd disk16-33	msg29-01	disk16	42131456	1316608	10/0	c3t4d19	ENA
sd disk20-33	msg29-01	disk20	42131456	1316608	11/0	c3t4d23	ENA
sd disk24-33	msg29-01	disk24	42131456	1316608	12/0	c3t4d27	ENA
sd disk28-33	msg29-01	disk28	42131456	1316608	13/0	c3t4d31	ENA
v msg30	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg30-02	msg30	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-36	msg30-02	disk102	46081280	1316608	0/0	c2t5d5	ENA
sd disk106-36	msg30-02	disk106	46081280	1316608	1/0	c2t5d9	ENA
sd disk110-36	msg30-02	disk110	46081280	1316608	2/0	c2t5d13	ENA
sd disk114-36	msg30-02	disk114	46081280	1316608	3/0	c2t5d17	ENA
sd disk118-36	msg30-02	disk118	46081280	1316608	4/0	c2t5d21	ENA
sd disk122-36	msg30-02	disk122	46081280	1316608	5/0	c2t5d25	ENA
sd disk126-36	msg30-02	disk126	46081280	1316608	6/0	c2t5d29	ENA
sd disk104-36	msg30-02	disk104	46081280	1316608	7/0	c4t4d7	ENA
sd disk108-36	msg30-02	disk108	46081280	1316608	8/0	c4t4d11	ENA
sd disk112-36	msg30-02	disk112	46081280	1316608	9/0	c4t4d15	ENA

sd disk116-36	msg30-02	disk116	46081280	1316608	10/0	c4t4d19	ENA
sd disk120-36	msg30-02	disk120	46081280	1316608	11/0	c4t4d23	ENA
sd disk124-36	msg30-02	disk124	46081280	1316608	12/0	c4t4d27	ENA
sd disk128-36	msg30-02	disk128	46081280	1316608	13/0	c4t4d31	ENA
pl msg30-01	msg30	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-45	msg30-01	disk02	57930752	1316608	0/0	c1t5d5	ENA
sd disk06-45	msg30-01	disk06	57930752	1316608	1/0	c1t5d9	ENA
sd disk10-45	msg30-01	disk10	57930752	1316608	2/0	c1t5d13	ENA
sd disk14-45	msg30-01	disk14	57930752	1316608	3/0	c1t5d17	ENA
sd disk18-45	msg30-01	disk18	57930752	1316608	4/0	c1t5d21	ENA
sd disk22-45	msg30-01	disk22	57930752	1316608	5/0	c1t5d25	ENA
sd disk26-45	msg30-01	disk26	57930752	1316608	6/0	c1t5d29	ENA
sd disk04-45	msg30-01	disk04	57930752	1316608	7/0	c3t4d7	ENA
sd disk08-45	msg30-01	disk08	57930752	1316608	8/0	c3t4d11	ENA
sd disk12-45	msg30-01	disk12	57930752	1316608	9/0	c3t4d15	ENA
sd disk16-45	msg30-01	disk16	57930752	1316608	10/0	c3t4d19	ENA
sd disk20-45	msg30-01	disk20	57930752	1316608	11/0	c3t4d23	ENA
sd disk24-45	msg30-01	disk24	57930752	1316608	12/0	c3t4d27	ENA
sd disk28-45	msg30-01	disk28	57930752	1316608	13/0	c3t4d31	ENA
v msg31	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg31-02	msg31	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-33	msg31-02	disk102	42131456	1316608	0/0	c2t5d5	ENA
sd disk106-33	msg31-02	disk106	42131456	1316608	1/0	c2t5d9	ENA
sd disk110-33	msg31-02	disk110	42131456	1316608	2/0	c2t5d13	ENA
sd disk114-33	msg31-02	disk114	42131456	1316608	3/0	c2t5d17	ENA
sd disk118-33	msg31-02	disk118	42131456	1316608	4/0	c2t5d21	ENA
sd disk122-33	msg31-02	disk122	42131456	1316608	5/0	c2t5d25	ENA
sd disk126-33	msg31-02	disk126	42131456	1316608	6/0	c2t5d29	ENA
sd disk104-33	msg31-02	disk104	42131456	1316608	7/0	c4t4d7	ENA
sd disk108-33	msg31-02	disk108	42131456	1316608	8/0	c4t4d11	ENA
sd disk112-33	msg31-02	disk112	42131456	1316608	9/0	c4t4d15	ENA
sd disk116-33	msg31-02	disk116	42131456	1316608	10/0	c4t4d19	ENA
sd disk120-33	msg31-02	disk120	42131456	1316608	11/0	c4t4d23	ENA
sd disk124-33	msg31-02	disk124	42131456	1316608	12/0	c4t4d27	ENA
sd disk128-33	msg31-02	disk128	42131456	1316608	13/0	c4t4d31	ENA
pl msg31-01	msg31	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-34	msg31-01	disk02	43448064	1316608	0/0	c1t5d5	ENA
sd disk06-34	msg31-01	disk06	43448064	1316608	1/0	c1t5d9	ENA
sd disk10-34	msg31-01	disk10	43448064	1316608	2/0	c1t5d13	ENA
sd disk14-34	msg31-01	disk14	43448064	1316608	3/0	c1t5d17	ENA
sd disk18-34	msg31-01	disk18	43448064	1316608	4/0	c1t5d21	ENA
sd disk22-34	msg31-01	disk22	43448064	1316608	5/0	c1t5d25	ENA
sd disk26-34	msg31-01	disk26	43448064	1316608	6/0	c1t5d29	ENA
sd disk04-34	msg31-01	disk04	43448064	1316608	7/0	c3t4d7	ENA
sd disk08-34	msg31-01	disk08	43448064	1316608	8/0	c3t4d11	ENA
sd disk12-34	msg31-01	disk12	43448064	1316608	9/0	c3t4d15	ENA
sd disk16-34	msg31-01	disk16	43448064	1316608	10/0	c3t4d19	ENA
sd disk20-34	msg31-01	disk20	43448064	1316608	11/0	c3t4d23	ENA
sd disk24-34	msg31-01	disk24	43448064	1316608	12/0	c3t4d27	ENA
sd disk28-34	msg31-01	disk28	43448064	1316608	13/0	c3t4d31	ENA
v msg32	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg32-02	msg32	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-35	msg32-02	disk102	44764672	1316608	0/0	c2t5d5	ENA
sd disk106-35	msg32-02	disk106	44764672	1316608	1/0	c2t5d9	ENA
sd disk110-35	msg32-02	disk110	44764672	1316608	2/0	c2t5d13	ENA
sd disk114-35	msg32-02	disk114	44764672	1316608	3/0	c2t5d17	ENA
sd disk118-35	msg32-02	disk118	44764672	1316608	4/0	c2t5d21	ENA
sd disk122-35	msg32-02	disk122	44764672	1316608	5/0	c2t5d25	ENA
sd disk126-35	msg32-02	disk126	44764672	1316608	6/0	c2t5d29	ENA
sd disk104-35	msg32-02	disk104	44764672	1316608	7/0	c4t4d7	ENA
sd disk108-35	msg32-02	disk108	44764672	1316608	8/0	c4t4d11	ENA
sd disk112-35	msg32-02	disk112	44764672	1316608	9/0	c4t4d15	ENA
sd disk116-35	msg32-02	disk116	44764672	1316608	10/0	c4t4d19	ENA
sd disk120-35	msg32-02	disk120	44764672	1316608	11/0	c4t4d23	ENA
sd disk124-35	msg32-02	disk124	44764672	1316608	12/0	c4t4d27	ENA
sd disk128-35	msg32-02	disk128	44764672	1316608	13/0	c4t4d31	ENA
pl msg32-01	msg32	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-38	msg32-01	disk02	48714496	1316608	0/0	c1t5d5	ENA

sd disk06-38	msg32-01	disk06	48714496	1316608	1/0	c1t5d9	ENA
sd disk10-38	msg32-01	disk10	48714496	1316608	2/0	c1t5d13	ENA
sd disk14-38	msg32-01	disk14	48714496	1316608	3/0	c1t5d17	ENA
sd disk18-38	msg32-01	disk18	48714496	1316608	4/0	c1t5d21	ENA
sd disk22-38	msg32-01	disk22	48714496	1316608	5/0	c1t5d25	ENA
sd disk26-38	msg32-01	disk26	48714496	1316608	6/0	c1t5d29	ENA
sd disk04-38	msg32-01	disk04	48714496	1316608	7/0	c3t4d7	ENA
sd disk08-38	msg32-01	disk08	48714496	1316608	8/0	c3t4d11	ENA
sd disk12-38	msg32-01	disk12	48714496	1316608	9/0	c3t4d15	ENA
sd disk16-38	msg32-01	disk16	48714496	1316608	10/0	c3t4d19	ENA
sd disk20-38	msg32-01	disk20	48714496	1316608	11/0	c3t4d23	ENA
sd disk24-38	msg32-01	disk24	48714496	1316608	12/0	c3t4d27	ENA
sd disk28-38	msg32-01	disk28	48714496	1316608	13/0	c3t4d31	ENA
v msg33	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg33-01	msg33	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-35	msg33-01	disk02	44764672	1316608	0/0	c1t5d5	ENA
sd disk06-35	msg33-01	disk06	44764672	1316608	1/0	c1t5d9	ENA
sd disk10-35	msg33-01	disk10	44764672	1316608	2/0	c1t5d13	ENA
sd disk14-35	msg33-01	disk14	44764672	1316608	3/0	c1t5d17	ENA
sd disk18-35	msg33-01	disk18	44764672	1316608	4/0	c1t5d21	ENA
sd disk22-35	msg33-01	disk22	44764672	1316608	5/0	c1t5d25	ENA
sd disk26-35	msg33-01	disk26	44764672	1316608	6/0	c1t5d29	ENA
sd disk04-35	msg33-01	disk04	44764672	1316608	7/0	c3t4d7	ENA
sd disk08-35	msg33-01	disk08	44764672	1316608	8/0	c3t4d11	ENA
sd disk12-35	msg33-01	disk12	44764672	1316608	9/0	c3t4d15	ENA
sd disk16-35	msg33-01	disk16	44764672	1316608	10/0	c3t4d19	ENA
sd disk20-35	msg33-01	disk20	44764672	1316608	11/0	c3t4d23	ENA
sd disk24-35	msg33-01	disk24	44764672	1316608	12/0	c3t4d27	ENA
sd disk28-35	msg33-01	disk28	44764672	1316608	13/0	c3t4d31	ENA
pl msg33-02	msg33	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-37	msg33-02	disk102	47397888	1316608	0/0	c2t5d5	ENA
sd disk106-37	msg33-02	disk106	47397888	1316608	1/0	c2t5d9	ENA
sd disk110-37	msg33-02	disk110	47397888	1316608	2/0	c2t5d13	ENA
sd disk114-37	msg33-02	disk114	47397888	1316608	3/0	c2t5d17	ENA
sd disk118-37	msg33-02	disk118	47397888	1316608	4/0	c2t5d21	ENA
sd disk122-37	msg33-02	disk122	47397888	1316608	5/0	c2t5d25	ENA
sd disk126-37	msg33-02	disk126	47397888	1316608	6/0	c2t5d29	ENA
sd disk104-37	msg33-02	disk104	47397888	1316608	7/0	c4t4d7	ENA
sd disk108-37	msg33-02	disk108	47397888	1316608	8/0	c4t4d11	ENA
sd disk112-37	msg33-02	disk112	47397888	1316608	9/0	c4t4d15	ENA
sd disk116-37	msg33-02	disk116	47397888	1316608	10/0	c4t4d19	ENA
sd disk120-37	msg33-02	disk120	47397888	1316608	11/0	c4t4d23	ENA
sd disk124-37	msg33-02	disk124	47397888	1316608	12/0	c4t4d27	ENA
sd disk128-37	msg33-02	disk128	47397888	1316608	13/0	c4t4d31	ENA
v msg34	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg34-01	msg34	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-36	msg34-01	disk02	46081280	1316608	0/0	c1t5d5	ENA
sd disk06-36	msg34-01	disk06	46081280	1316608	1/0	c1t5d9	ENA
sd disk10-36	msg34-01	disk10	46081280	1316608	2/0	c1t5d13	ENA
sd disk14-36	msg34-01	disk14	46081280	1316608	3/0	c1t5d17	ENA
sd disk18-36	msg34-01	disk18	46081280	1316608	4/0	c1t5d21	ENA
sd disk22-36	msg34-01	disk22	46081280	1316608	5/0	c1t5d25	ENA
sd disk26-36	msg34-01	disk26	46081280	1316608	6/0	c1t5d29	ENA
sd disk04-36	msg34-01	disk04	46081280	1316608	7/0	c3t4d7	ENA
sd disk08-36	msg34-01	disk08	46081280	1316608	8/0	c3t4d11	ENA
sd disk12-36	msg34-01	disk12	46081280	1316608	9/0	c3t4d15	ENA
sd disk16-36	msg34-01	disk16	46081280	1316608	10/0	c3t4d19	ENA
sd disk20-36	msg34-01	disk20	46081280	1316608	11/0	c3t4d23	ENA
sd disk24-36	msg34-01	disk24	46081280	1316608	12/0	c3t4d27	ENA
sd disk28-36	msg34-01	disk28	46081280	1316608	13/0	c3t4d31	ENA
pl msg34-02	msg34	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-38	msg34-02	disk102	48714496	1316608	0/0	c2t5d5	ENA
sd disk106-38	msg34-02	disk106	48714496	1316608	1/0	c2t5d9	ENA
sd disk110-38	msg34-02	disk110	48714496	1316608	2/0	c2t5d13	ENA
sd disk114-38	msg34-02	disk114	48714496	1316608	3/0	c2t5d17	ENA
sd disk118-38	msg34-02	disk118	48714496	1316608	4/0	c2t5d21	ENA
sd disk122-38	msg34-02	disk122	48714496	1316608	5/0	c2t5d25	ENA
sd disk126-38	msg34-02	disk126	48714496	1316608	6/0	c2t5d29	ENA

sd	disk104-38	msg34-02	disk104	48714496	1316608	7/0	c4t4d7	ENA
sd	disk108-38	msg34-02	disk108	48714496	1316608	8/0	c4t4d11	ENA
sd	disk112-38	msg34-02	disk112	48714496	1316608	9/0	c4t4d15	ENA
sd	disk116-38	msg34-02	disk116	48714496	1316608	10/0	c4t4d19	ENA
sd	disk120-38	msg34-02	disk120	48714496	1316608	11/0	c4t4d23	ENA
sd	disk124-38	msg34-02	disk124	48714496	1316608	12/0	c4t4d27	ENA
sd	disk128-38	msg34-02	disk128	48714496	1316608	13/0	c4t4d31	ENA
v	msg35	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg35-01	msg35	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-37	msg35-01	disk02	47397888	1316608	0/0	c1t5d5	ENA
sd	disk06-37	msg35-01	disk06	47397888	1316608	1/0	c1t5d9	ENA
sd	disk10-37	msg35-01	disk10	47397888	1316608	2/0	c1t5d13	ENA
sd	disk14-37	msg35-01	disk14	47397888	1316608	3/0	c1t5d17	ENA
sd	disk18-37	msg35-01	disk18	47397888	1316608	4/0	c1t5d21	ENA
sd	disk22-37	msg35-01	disk22	47397888	1316608	5/0	c1t5d25	ENA
sd	disk26-37	msg35-01	disk26	47397888	1316608	6/0	c1t5d29	ENA
sd	disk04-37	msg35-01	disk04	47397888	1316608	7/0	c3t4d7	ENA
sd	disk08-37	msg35-01	disk08	47397888	1316608	8/0	c3t4d11	ENA
sd	disk12-37	msg35-01	disk12	47397888	1316608	9/0	c3t4d15	ENA
sd	disk16-37	msg35-01	disk16	47397888	1316608	10/0	c3t4d19	ENA
sd	disk20-37	msg35-01	disk20	47397888	1316608	11/0	c3t4d23	ENA
sd	disk24-37	msg35-01	disk24	47397888	1316608	12/0	c3t4d27	ENA
sd	disk28-37	msg35-01	disk28	47397888	1316608	13/0	c3t4d31	ENA
pl	msg35-02	msg35	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-39	msg35-02	disk102	50031104	1316608	0/0	c2t5d5	ENA
sd	disk106-39	msg35-02	disk106	50031104	1316608	1/0	c2t5d9	ENA
sd	disk110-39	msg35-02	disk110	50031104	1316608	2/0	c2t5d13	ENA
sd	disk114-39	msg35-02	disk114	50031104	1316608	3/0	c2t5d17	ENA
sd	disk118-39	msg35-02	disk118	50031104	1316608	4/0	c2t5d21	ENA
sd	disk122-39	msg35-02	disk122	50031104	1316608	5/0	c2t5d25	ENA
sd	disk126-39	msg35-02	disk126	50031104	1316608	6/0	c2t5d29	ENA
sd	disk104-39	msg35-02	disk104	50031104	1316608	7/0	c4t4d7	ENA
sd	disk108-39	msg35-02	disk108	50031104	1316608	8/0	c4t4d11	ENA
sd	disk112-39	msg35-02	disk112	50031104	1316608	9/0	c4t4d15	ENA
sd	disk116-39	msg35-02	disk116	50031104	1316608	10/0	c4t4d19	ENA
sd	disk120-39	msg35-02	disk120	50031104	1316608	11/0	c4t4d23	ENA
sd	disk124-39	msg35-02	disk124	50031104	1316608	12/0	c4t4d27	ENA
sd	disk128-39	msg35-02	disk128	50031104	1316608	13/0	c4t4d31	ENA
v	msg36	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg36-02	msg36	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-43	msg36-02	disk102	55297536	1316608	0/0	c2t5d5	ENA
sd	disk106-43	msg36-02	disk106	55297536	1316608	1/0	c2t5d9	ENA
sd	disk110-43	msg36-02	disk110	55297536	1316608	2/0	c2t5d13	ENA
sd	disk114-43	msg36-02	disk114	55297536	1316608	3/0	c2t5d17	ENA
sd	disk118-43	msg36-02	disk118	55297536	1316608	4/0	c2t5d21	ENA
sd	disk122-43	msg36-02	disk122	55297536	1316608	5/0	c2t5d25	ENA
sd	disk126-43	msg36-02	disk126	55297536	1316608	6/0	c2t5d29	ENA
sd	disk104-43	msg36-02	disk104	55297536	1316608	7/0	c4t4d7	ENA
sd	disk108-43	msg36-02	disk108	55297536	1316608	8/0	c4t4d11	ENA
sd	disk112-43	msg36-02	disk112	55297536	1316608	9/0	c4t4d15	ENA
sd	disk116-43	msg36-02	disk116	55297536	1316608	10/0	c4t4d19	ENA
sd	disk120-43	msg36-02	disk120	55297536	1316608	11/0	c4t4d23	ENA
sd	disk124-43	msg36-02	disk124	55297536	1316608	12/0	c4t4d27	ENA
sd	disk128-43	msg36-02	disk128	55297536	1316608	13/0	c4t4d31	ENA
pl	msg36-01	msg36	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-39	msg36-01	disk02	50031104	1316608	0/0	c1t5d5	ENA
sd	disk06-39	msg36-01	disk06	50031104	1316608	1/0	c1t5d9	ENA
sd	disk10-39	msg36-01	disk10	50031104	1316608	2/0	c1t5d13	ENA
sd	disk14-39	msg36-01	disk14	50031104	1316608	3/0	c1t5d17	ENA
sd	disk18-39	msg36-01	disk18	50031104	1316608	4/0	c1t5d21	ENA
sd	disk22-39	msg36-01	disk22	50031104	1316608	5/0	c1t5d25	ENA
sd	disk26-39	msg36-01	disk26	50031104	1316608	6/0	c1t5d29	ENA
sd	disk04-39	msg36-01	disk04	50031104	1316608	7/0	c3t4d7	ENA
sd	disk08-39	msg36-01	disk08	50031104	1316608	8/0	c3t4d11	ENA
sd	disk12-39	msg36-01	disk12	50031104	1316608	9/0	c3t4d15	ENA
sd	disk16-39	msg36-01	disk16	50031104	1316608	10/0	c3t4d19	ENA
sd	disk20-39	msg36-01	disk20	50031104	1316608	11/0	c3t4d23	ENA
sd	disk24-39	msg36-01	disk24	50031104	1316608	12/0	c3t4d27	ENA

sd disk28-39	msg36-01	disk28	50031104	1316608	13/0	c3t4d31	ENA
v msg37	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg37-02	msg37	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-41	msg37-02	disk102	52664320	1316608	0/0	c2t5d5	ENA
sd disk106-41	msg37-02	disk106	52664320	1316608	1/0	c2t5d9	ENA
sd disk110-41	msg37-02	disk110	52664320	1316608	2/0	c2t5d13	ENA
sd disk114-41	msg37-02	disk114	52664320	1316608	3/0	c2t5d17	ENA
sd disk118-41	msg37-02	disk118	52664320	1316608	4/0	c2t5d21	ENA
sd disk122-41	msg37-02	disk122	52664320	1316608	5/0	c2t5d25	ENA
sd disk126-41	msg37-02	disk126	52664320	1316608	6/0	c2t5d29	ENA
sd disk104-41	msg37-02	disk104	52664320	1316608	7/0	c4t4d7	ENA
sd disk108-41	msg37-02	disk108	52664320	1316608	8/0	c4t4d11	ENA
sd disk112-41	msg37-02	disk112	52664320	1316608	9/0	c4t4d15	ENA
sd disk116-41	msg37-02	disk116	52664320	1316608	10/0	c4t4d19	ENA
sd disk120-41	msg37-02	disk120	52664320	1316608	11/0	c4t4d23	ENA
sd disk124-41	msg37-02	disk124	52664320	1316608	12/0	c4t4d27	ENA
sd disk128-41	msg37-02	disk128	52664320	1316608	13/0	c4t4d31	ENA
pl msg37-01	msg37	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-42	msg37-01	disk02	53980928	1316608	0/0	clt5d5	ENA
sd disk06-42	msg37-01	disk06	53980928	1316608	1/0	clt5d9	ENA
sd disk10-42	msg37-01	disk10	53980928	1316608	2/0	clt5d13	ENA
sd disk14-42	msg37-01	disk14	53980928	1316608	3/0	clt5d17	ENA
sd disk18-42	msg37-01	disk18	53980928	1316608	4/0	clt5d21	ENA
sd disk22-42	msg37-01	disk22	53980928	1316608	5/0	clt5d25	ENA
sd disk26-42	msg37-01	disk26	53980928	1316608	6/0	clt5d29	ENA
sd disk04-42	msg37-01	disk04	53980928	1316608	7/0	c3t4d7	ENA
sd disk08-42	msg37-01	disk08	53980928	1316608	8/0	c3t4d11	ENA
sd disk12-42	msg37-01	disk12	53980928	1316608	9/0	c3t4d15	ENA
sd disk16-42	msg37-01	disk16	53980928	1316608	10/0	c3t4d19	ENA
sd disk20-42	msg37-01	disk20	53980928	1316608	11/0	c3t4d23	ENA
sd disk24-42	msg37-01	disk24	53980928	1316608	12/0	c3t4d27	ENA
sd disk28-42	msg37-01	disk28	53980928	1316608	13/0	c3t4d31	ENA
v msg38	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg38-01	msg38	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk02-40	msg38-01	disk02	51347712	1316608	0/0	clt5d5	ENA
sd disk06-40	msg38-01	disk06	51347712	1316608	1/0	clt5d9	ENA
sd disk10-40	msg38-01	disk10	51347712	1316608	2/0	clt5d13	ENA
sd disk14-40	msg38-01	disk14	51347712	1316608	3/0	clt5d17	ENA
sd disk18-40	msg38-01	disk18	51347712	1316608	4/0	clt5d21	ENA
sd disk22-40	msg38-01	disk22	51347712	1316608	5/0	clt5d25	ENA
sd disk26-40	msg38-01	disk26	51347712	1316608	6/0	clt5d29	ENA
sd disk04-40	msg38-01	disk04	51347712	1316608	7/0	c3t4d7	ENA
sd disk08-40	msg38-01	disk08	51347712	1316608	8/0	c3t4d11	ENA
sd disk12-40	msg38-01	disk12	51347712	1316608	9/0	c3t4d15	ENA
sd disk16-40	msg38-01	disk16	51347712	1316608	10/0	c3t4d19	ENA
sd disk20-40	msg38-01	disk20	51347712	1316608	11/0	c3t4d23	ENA
sd disk24-40	msg38-01	disk24	51347712	1316608	12/0	c3t4d27	ENA
sd disk28-40	msg38-01	disk28	51347712	1316608	13/0	c3t4d31	ENA
pl msg38-02	msg38	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-40	msg38-02	disk102	51347712	1316608	0/0	c2t5d5	ENA
sd disk106-40	msg38-02	disk106	51347712	1316608	1/0	c2t5d9	ENA
sd disk110-40	msg38-02	disk110	51347712	1316608	2/0	c2t5d13	ENA
sd disk114-40	msg38-02	disk114	51347712	1316608	3/0	c2t5d17	ENA
sd disk118-40	msg38-02	disk118	51347712	1316608	4/0	c2t5d21	ENA
sd disk122-40	msg38-02	disk122	51347712	1316608	5/0	c2t5d25	ENA
sd disk126-40	msg38-02	disk126	51347712	1316608	6/0	c2t5d29	ENA
sd disk104-40	msg38-02	disk104	51347712	1316608	7/0	c4t4d7	ENA
sd disk108-40	msg38-02	disk108	51347712	1316608	8/0	c4t4d11	ENA
sd disk112-40	msg38-02	disk112	51347712	1316608	9/0	c4t4d15	ENA
sd disk116-40	msg38-02	disk116	51347712	1316608	10/0	c4t4d19	ENA
sd disk120-40	msg38-02	disk120	51347712	1316608	11/0	c4t4d23	ENA
sd disk124-40	msg38-02	disk124	51347712	1316608	12/0	c4t4d27	ENA
sd disk128-40	msg38-02	disk128	51347712	1316608	13/0	c4t4d31	ENA
v msg39	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl msg39-02	msg39	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd disk102-44	msg39-02	disk102	56614144	1316608	0/0	c2t5d5	ENA
sd disk106-44	msg39-02	disk106	56614144	1316608	1/0	c2t5d9	ENA

sd	disk110-44	msg39-02	disk110	56614144	1316608	2/0	c2t5d13	ENA
sd	disk114-44	msg39-02	disk114	56614144	1316608	3/0	c2t5d17	ENA
sd	disk118-44	msg39-02	disk118	56614144	1316608	4/0	c2t5d21	ENA
sd	disk122-44	msg39-02	disk122	56614144	1316608	5/0	c2t5d25	ENA
sd	disk126-44	msg39-02	disk126	56614144	1316608	6/0	c2t5d29	ENA
sd	disk104-44	msg39-02	disk104	56614144	1316608	7/0	c4t4d7	ENA
sd	disk108-44	msg39-02	disk108	56614144	1316608	8/0	c4t4d11	ENA
sd	disk112-44	msg39-02	disk112	56614144	1316608	9/0	c4t4d15	ENA
sd	disk116-44	msg39-02	disk116	56614144	1316608	10/0	c4t4d19	ENA
sd	disk120-44	msg39-02	disk120	56614144	1316608	11/0	c4t4d23	ENA
sd	disk124-44	msg39-02	disk124	56614144	1316608	12/0	c4t4d27	ENA
sd	disk128-44	msg39-02	disk128	56614144	1316608	13/0	c4t4d31	ENA
pl	msg39-01	msg39	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-41	msg39-01	disk02	52664320	1316608	0/0	clt5d5	ENA
sd	disk06-41	msg39-01	disk06	52664320	1316608	1/0	clt5d9	ENA
sd	disk10-41	msg39-01	disk10	52664320	1316608	2/0	clt5d13	ENA
sd	disk14-41	msg39-01	disk14	52664320	1316608	3/0	clt5d17	ENA
sd	disk18-41	msg39-01	disk18	52664320	1316608	4/0	clt5d21	ENA
sd	disk22-41	msg39-01	disk22	52664320	1316608	5/0	clt5d25	ENA
sd	disk26-41	msg39-01	disk26	52664320	1316608	6/0	clt5d29	ENA
sd	disk04-41	msg39-01	disk04	52664320	1316608	7/0	c3t4d7	ENA
sd	disk08-41	msg39-01	disk08	52664320	1316608	8/0	c3t4d11	ENA
sd	disk12-41	msg39-01	disk12	52664320	1316608	9/0	c3t4d15	ENA
sd	disk16-41	msg39-01	disk16	52664320	1316608	10/0	c3t4d19	ENA
sd	disk20-41	msg39-01	disk20	52664320	1316608	11/0	c3t4d23	ENA
sd	disk24-41	msg39-01	disk24	52664320	1316608	12/0	c3t4d27	ENA
sd	disk28-41	msg39-01	disk28	52664320	1316608	13/0	c3t4d31	ENA
v	msg40	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg40-01	msg40	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-43	msg40-01	disk02	55297536	1316608	0/0	clt5d5	ENA
sd	disk06-43	msg40-01	disk06	55297536	1316608	1/0	clt5d9	ENA
sd	disk10-43	msg40-01	disk10	55297536	1316608	2/0	clt5d13	ENA
sd	disk14-43	msg40-01	disk14	55297536	1316608	3/0	clt5d17	ENA
sd	disk18-43	msg40-01	disk18	55297536	1316608	4/0	clt5d21	ENA
sd	disk22-43	msg40-01	disk22	55297536	1316608	5/0	clt5d25	ENA
sd	disk26-43	msg40-01	disk26	55297536	1316608	6/0	clt5d29	ENA
sd	disk04-43	msg40-01	disk04	55297536	1316608	7/0	c3t4d7	ENA
sd	disk08-43	msg40-01	disk08	55297536	1316608	8/0	c3t4d11	ENA
sd	disk12-43	msg40-01	disk12	55297536	1316608	9/0	c3t4d15	ENA
sd	disk16-43	msg40-01	disk16	55297536	1316608	10/0	c3t4d19	ENA
sd	disk20-43	msg40-01	disk20	55297536	1316608	11/0	c3t4d23	ENA
sd	disk24-43	msg40-01	disk24	55297536	1316608	12/0	c3t4d27	ENA
sd	disk28-43	msg40-01	disk28	55297536	1316608	13/0	c3t4d31	ENA
pl	msg40-02	msg40	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-42	msg40-02	disk102	53980928	1316608	0/0	c2t5d5	ENA
sd	disk106-42	msg40-02	disk106	53980928	1316608	1/0	c2t5d9	ENA
sd	disk110-42	msg40-02	disk110	53980928	1316608	2/0	c2t5d13	ENA
sd	disk114-42	msg40-02	disk114	53980928	1316608	3/0	c2t5d17	ENA
sd	disk118-42	msg40-02	disk118	53980928	1316608	4/0	c2t5d21	ENA
sd	disk122-42	msg40-02	disk122	53980928	1316608	5/0	c2t5d25	ENA
sd	disk126-42	msg40-02	disk126	53980928	1316608	6/0	c2t5d29	ENA
sd	disk104-42	msg40-02	disk104	53980928	1316608	7/0	c4t4d7	ENA
sd	disk108-42	msg40-02	disk108	53980928	1316608	8/0	c4t4d11	ENA
sd	disk112-42	msg40-02	disk112	53980928	1316608	9/0	c4t4d15	ENA
sd	disk116-42	msg40-02	disk116	53980928	1316608	10/0	c4t4d19	ENA
sd	disk120-42	msg40-02	disk120	53980928	1316608	11/0	c4t4d23	ENA
sd	disk124-42	msg40-02	disk124	53980928	1316608	12/0	c4t4d27	ENA
sd	disk128-42	msg40-02	disk128	53980928	1316608	13/0	c4t4d31	ENA
v	msg41	fsgen	ENABLED	ACTIVE	18432000	SELECT	-	
pl	msg41-01	msg41	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk02-44	msg41-01	disk02	56614144	1316608	0/0	clt5d5	ENA
sd	disk06-44	msg41-01	disk06	56614144	1316608	1/0	clt5d9	ENA
sd	disk10-44	msg41-01	disk10	56614144	1316608	2/0	clt5d13	ENA
sd	disk14-44	msg41-01	disk14	56614144	1316608	3/0	clt5d17	ENA
sd	disk18-44	msg41-01	disk18	56614144	1316608	4/0	clt5d21	ENA
sd	disk22-44	msg41-01	disk22	56614144	1316608	5/0	clt5d25	ENA
sd	disk26-44	msg41-01	disk26	56614144	1316608	6/0	clt5d29	ENA
sd	disk04-44	msg41-01	disk04	56614144	1316608	7/0	c3t4d7	ENA

sd	disk08-44	msg41-01	disk08	56614144	1316608	8/0	c3t4d11	ENA
sd	disk12-44	msg41-01	disk12	56614144	1316608	9/0	c3t4d15	ENA
sd	disk16-44	msg41-01	disk16	56614144	1316608	10/0	c3t4d19	ENA
sd	disk20-44	msg41-01	disk20	56614144	1316608	11/0	c3t4d23	ENA
sd	disk24-44	msg41-01	disk24	56614144	1316608	12/0	c3t4d27	ENA
sd	disk28-44	msg41-01	disk28	56614144	1316608	13/0	c3t4d31	ENA
pl	msg41-02	msg41	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
sd	disk102-45	msg41-02	disk102	57930752	1316608	0/0	c2t5d5	ENA
sd	disk106-45	msg41-02	disk106	57930752	1316608	1/0	c2t5d9	ENA
sd	disk110-45	msg41-02	disk110	57930752	1316608	2/0	c2t5d13	ENA
sd	disk114-45	msg41-02	disk114	57930752	1316608	3/0	c2t5d17	ENA
sd	disk118-45	msg41-02	disk118	57930752	1316608	4/0	c2t5d21	ENA
sd	disk122-45	msg41-02	disk122	57930752	1316608	5/0	c2t5d25	ENA
sd	disk126-45	msg41-02	disk126	57930752	1316608	6/0	c2t5d29	ENA
sd	disk104-45	msg41-02	disk104	57930752	1316608	7/0	c4t4d7	ENA
sd	disk108-45	msg41-02	disk108	57930752	1316608	8/0	c4t4d11	ENA
sd	disk112-45	msg41-02	disk112	57930752	1316608	9/0	c4t4d15	ENA
sd	disk116-45	msg41-02	disk116	57930752	1316608	10/0	c4t4d19	ENA
sd	disk120-45	msg41-02	disk120	57930752	1316608	11/0	c4t4d23	ENA
sd	disk124-45	msg41-02	disk124	57930752	1316608	12/0	c4t4d27	ENA
sd	disk128-45	msg41-02	disk128	57930752	1316608	13/0	c4t4d31	ENA
Disk group: lh2								
DG NAME	NCONFIG	NLOG	MINORS	GROUP-ID				
DM NAME	DEVICE	TYPE	PRIVLEN	PUBLEN	STATE			
V NAME	USETYPE	KSTATE	STATE	LENGTH	READPOL	PREFPLEX		
PL NAME	VOLUME	KSTATE	STATE	LENGTH	LAYOUT	NCOL/WID	MODE	
SD NAME	PLEX	DISK	DISKOFFS	LENGTH	[COL/]OFF	DEVICE	MODE	
dg	lh2	default	default	100000	973017412.1240.ha1			
dm	disk01	c1t5d4s2	sliced	4095	70578176	-		
dm	disk03	c3t4d6s2	sliced	4095	70578176	-		
dm	disk05	c1t5d8s2	sliced	4095	70578176	-		
dm	disk07	c3t4d10s2	sliced	4095	70578176	-		
dm	disk09	c1t5d12s2	sliced	4095	70578176	-		
dm	disk11	c3t4d14s2	sliced	4095	70578176	-		
dm	disk13	c1t5d16s2	sliced	4095	70578176	-		
dm	disk15	c3t4d18s2	sliced	4095	70578176	-		
dm	disk17	c1t5d20s2	sliced	4095	70578176	-		
dm	disk19	c3t4d22s2	sliced	4095	70578176	-		
dm	disk21	c1t5d24s2	sliced	4095	70578176	-		
dm	disk23	c3t4d26s2	sliced	4095	70578176	-		
dm	disk25	c1t5d28s2	sliced	4095	70578176	-		
dm	disk27	c3t4d30s2	sliced	4095	70578176	-		
dm	disk101	c2t5d4s2	sliced	4095	70578176	-		
dm	disk103	c4t4d6s2	sliced	4095	70578176	-		
dm	disk105	c2t5d8s2	sliced	4095	70578176	-		
dm	disk107	c4t4d10s2	sliced	4095	70578176	-		
dm	disk109	c2t5d12s2	sliced	4095	70578176	-		
dm	disk111	c4t4d14s2	sliced	4095	70578176	-		
dm	disk113	c2t5d16s2	sliced	4095	70578176	-		
dm	disk115	c4t4d18s2	sliced	4095	70578176	-		
dm	disk117	c2t5d20s2	sliced	4095	70578176	-		
dm	disk119	c4t4d22s2	sliced	4095	70578176	-		
dm	disk121	c2t5d24s2	sliced	4095	70578176	-		
dm	disk123	c4t4d26s2	sliced	4095	70578176	-		
dm	disk125	c2t5d28s2	sliced	4095	70578176	-		
dm	disk127	c4t4d30s2	sliced	4095	70578176	-		
dm	lh2vol1	c1t5d0s2	sliced	4095	4182016	-		
dm	lh2vol2	c2t5d0s2	sliced	4095	4182016	-		
v	bmc	fsgen	ENABLED	ACTIVE	2048000	SELECT	bmc-01	
pl	bmc-01	bmc	ENABLED	ACTIVE	2048256	STRIPE	14/128	RW
sd	disk01-04	bmc-01	disk01	14921344	146304	0/0	c1t5d4	ENA
sd	disk05-04	bmc-01	disk05	14921344	146304	1/0	c1t5d8	ENA
sd	disk09-04	bmc-01	disk09	14921344	146304	2/0	c1t5d12	ENA
sd	disk13-04	bmc-01	disk13	14921344	146304	3/0	c1t5d16	ENA
sd	disk17-04	bmc-01	disk17	14921344	146304	4/0	c1t5d20	ENA

sd	disk21-04	bmc-01	disk21	14921344	146304	5/0	c1t5d24	ENA
sd	disk25-04	bmc-01	disk25	14921344	146304	6/0	c1t5d28	ENA
sd	disk03-04	bmc-01	disk03	14921344	146304	7/0	c3t4d6	ENA
sd	disk07-04	bmc-01	disk07	14921344	146304	8/0	c3t4d10	ENA
sd	disk11-04	bmc-01	disk11	14921344	146304	9/0	c3t4d14	ENA
sd	disk15-04	bmc-01	disk15	14921344	146304	10/0	c3t4d18	ENA
sd	disk19-04	bmc-01	disk19	14921344	146304	11/0	c3t4d22	ENA
sd	disk23-04	bmc-01	disk23	14921344	146304	12/0	c3t4d26	ENA
sd	disk27-04	bmc-01	disk27	14921344	146304	13/0	c3t4d30	ENA
v	lh2-vol	fsgen	ENABLED	ACTIVE	3072000	SELECT	-	
pl	lh2-vol-01	lh2-vol	ENABLED	ACTIVE	3072000	CONCAT	-	RW
sd	lh2vol1-01	lh2-vol-01	lh2vol1	0	3072000	0	c1t5d0	ENA
pl	lh2-vol-02	lh2-vol	ENABLED	ACTIVE	3072000	CONCAT	-	RW
sd	lh2volm-01	lh2-vol-02	lh2volm	0	3072000	0	c2t5d0	ENA
v	lh2oracle01	fsgen	ENABLED	ACTIVE	153600000	SELECT	-	
pl	lh2oracle01-01	lh2oracle01	ENABLED	ACTIVE	153601280	STRIPE	14/128	RW
sd	disk01-02	lh2oracle01-01	disk01	292608	10971520	0/0	c1t5d4	ENA
sd	disk05-02	lh2oracle01-01	disk05	292608	10971520	1/0	c1t5d8	ENA
sd	disk09-02	lh2oracle01-01	disk09	292608	10971520	2/0	c1t5d12	ENA
sd	disk13-02	lh2oracle01-01	disk13	292608	10971520	3/0	c1t5d16	ENA
sd	disk17-02	lh2oracle01-01	disk17	292608	10971520	4/0	c1t5d20	ENA
sd	disk21-02	lh2oracle01-01	disk21	292608	10971520	5/0	c1t5d24	ENA
sd	disk25-02	lh2oracle01-01	disk25	292608	10971520	6/0	c1t5d28	ENA
sd	disk03-02	lh2oracle01-01	disk03	292608	10971520	7/0	c3t4d6	ENA
sd	disk07-02	lh2oracle01-01	disk07	292608	10971520	8/0	c3t4d10	ENA
sd	disk11-02	lh2oracle01-01	disk11	292608	10971520	9/0	c3t4d14	ENA
sd	disk15-02	lh2oracle01-01	disk15	292608	10971520	10/0	c3t4d18	ENA
sd	disk19-02	lh2oracle01-01	disk19	292608	10971520	11/0	c3t4d22	ENA
sd	disk23-02	lh2oracle01-01	disk23	292608	10971520	12/0	c3t4d26	ENA
sd	disk27-02	lh2oracle01-01	disk27	292608	10971520	13/0	c3t4d30	ENA
pl	lh2oracle01-02	lh2oracle01	ENABLED	ACTIVE	153601280	STRIPE	14/128	RW
sd	disk101-01	lh2oracle01-02	disk101	0	10971520	0/0	c2t5d4	ENA
sd	disk105-01	lh2oracle01-02	disk105	0	10971520	1/0	c2t5d8	ENA
sd	disk109-01	lh2oracle01-02	disk109	0	10971520	2/0	c2t5d12	ENA
sd	disk113-01	lh2oracle01-02	disk113	0	10971520	3/0	c2t5d16	ENA
sd	disk117-01	lh2oracle01-02	disk117	0	10971520	4/0	c2t5d20	ENA
sd	disk121-01	lh2oracle01-02	disk121	0	10971520	5/0	c2t5d24	ENA
sd	disk125-01	lh2oracle01-02	disk125	0	10971520	6/0	c2t5d28	ENA
sd	disk103-01	lh2oracle01-02	disk103	0	10971520	7/0	c4t4d6	ENA
sd	disk107-01	lh2oracle01-02	disk107	0	10971520	8/0	c4t4d10	ENA
sd	disk111-01	lh2oracle01-02	disk111	0	10971520	9/0	c4t4d14	ENA
sd	disk115-01	lh2oracle01-02	disk115	0	10971520	10/0	c4t4d18	ENA
sd	disk119-01	lh2oracle01-02	disk119	0	10971520	11/0	c4t4d22	ENA
sd	disk123-01	lh2oracle01-02	disk123	0	10971520	12/0	c4t4d26	ENA
sd	disk127-01	lh2oracle01-02	disk127	0	10971520	13/0	c4t4d30	ENA
v	lh2oracle02	fsgen	ENABLED	ACTIVE	51200000	SELECT	-	
pl	lh2oracle02-02	lh2oracle02	ENABLED	ACTIVE	51201024	STRIPE	14/128	RW
sd	disk101-03	lh2oracle02-02	disk101	11264128	3657216	0/0	c2t5d4	ENA
sd	disk105-03	lh2oracle02-02	disk105	11264128	3657216	1/0	c2t5d8	ENA
sd	disk109-03	lh2oracle02-02	disk109	11264128	3657216	2/0	c2t5d12	ENA
sd	disk113-03	lh2oracle02-02	disk113	11264128	3657216	3/0	c2t5d16	ENA
sd	disk117-03	lh2oracle02-02	disk117	11264128	3657216	4/0	c2t5d20	ENA
sd	disk121-03	lh2oracle02-02	disk121	11264128	3657216	5/0	c2t5d24	ENA
sd	disk125-03	lh2oracle02-02	disk125	11264128	3657216	6/0	c2t5d28	ENA
sd	disk103-03	lh2oracle02-02	disk103	11264128	3657216	7/0	c4t4d6	ENA
sd	disk107-03	lh2oracle02-02	disk107	11264128	3657216	8/0	c4t4d10	ENA
sd	disk111-03	lh2oracle02-02	disk111	11264128	3657216	9/0	c4t4d14	ENA
sd	disk115-03	lh2oracle02-02	disk115	11264128	3657216	10/0	c4t4d18	ENA
sd	disk119-03	lh2oracle02-02	disk119	11264128	3657216	11/0	c4t4d22	ENA
sd	disk123-03	lh2oracle02-02	disk123	11264128	3657216	12/0	c4t4d26	ENA
sd	disk127-03	lh2oracle02-02	disk127	11264128	3657216	13/0	c4t4d30	ENA
pl	lh2oracle02-01	lh2oracle02	ENABLED	ACTIVE	51201024	STRIPE	14/128	RW
sd	disk01-03	lh2oracle02-01	disk01	11264128	3657216	0/0	c1t5d4	ENA
sd	disk05-03	lh2oracle02-01	disk05	11264128	3657216	1/0	c1t5d8	ENA
sd	disk09-03	lh2oracle02-01	disk09	11264128	3657216	2/0	c1t5d12	ENA
sd	disk13-03	lh2oracle02-01	disk13	11264128	3657216	3/0	c1t5d16	ENA
sd	disk17-03	lh2oracle02-01	disk17	11264128	3657216	4/0	c1t5d20	ENA

```

sd disk21-03    lh2oracle02-01 disk21 11264128 3657216 5/0    c1t5d24  ENA
sd disk25-03    lh2oracle02-01 disk25 11264128 3657216 6/0    c1t5d28  ENA
sd disk03-03    lh2oracle02-01 disk03 11264128 3657216 7/0    c3t4d6   ENA
sd disk07-03    lh2oracle02-01 disk07 11264128 3657216 8/0    c3t4d10  ENA
sd disk11-03    lh2oracle02-01 disk11 11264128 3657216 9/0    c3t4d14  ENA
sd disk15-03    lh2oracle02-01 disk15 11264128 3657216 10/0   c3t4d18  ENA
sd disk19-03    lh2oracle02-01 disk19 11264128 3657216 11/0   c3t4d22  ENA
sd disk23-03    lh2oracle02-01 disk23 11264128 3657216 12/0   c3t4d26  ENA
sd disk27-03    lh2oracle02-01 disk27 11264128 3657216 13/0   c3t4d30  ENA

v  lh2oracle03  fsgen          ENABLED  ACTIVE  4096000  SELECT  -
pl  lh2oracle03-02  lh2oracle03  ENABLED  ACTIVE  4096512  STRIPE  14/128  RW
sd  disk101-02    lh2oracle03-02  disk101  10971520 292608  0/0    c2t5d4   ENA
sd  disk105-02    lh2oracle03-02  disk105  10971520 292608  1/0    c2t5d8   ENA
sd  disk109-02    lh2oracle03-02  disk109  10971520 292608  2/0    c2t5d12  ENA
sd  disk113-02    lh2oracle03-02  disk113  10971520 292608  3/0    c2t5d16  ENA
sd  disk117-02    lh2oracle03-02  disk117  10971520 292608  4/0    c2t5d20  ENA
sd  disk121-02    lh2oracle03-02  disk121  10971520 292608  5/0    c2t5d24  ENA
sd  disk125-02    lh2oracle03-02  disk125  10971520 292608  6/0    c2t5d28  ENA
sd  disk103-02    lh2oracle03-02  disk103  10971520 292608  7/0    c4t4d6   ENA
sd  disk107-02    lh2oracle03-02  disk107  10971520 292608  8/0    c4t4d10  ENA
sd  disk111-02    lh2oracle03-02  disk111  10971520 292608  9/0    c4t4d14  ENA
sd  disk115-02    lh2oracle03-02  disk115  10971520 292608  10/0   c4t4d18  ENA
sd  disk119-02    lh2oracle03-02  disk119  10971520 292608  11/0   c4t4d22  ENA
sd  disk123-02    lh2oracle03-02  disk123  10971520 292608  12/0   c4t4d26  ENA
sd  disk127-02    lh2oracle03-02  disk127  10971520 292608  13/0   c4t4d30  ENA
pl  lh2oracle03-01  lh2oracle03  ENABLED  ACTIVE  4096512  STRIPE  14/128  RW
sd  disk01-01    lh2oracle03-01  disk01  0          292608  0/0    c1t5d4   ENA
sd  disk05-01    lh2oracle03-01  disk05  0          292608  1/0    c1t5d8   ENA
sd  disk09-01    lh2oracle03-01  disk09  0          292608  2/0    c1t5d12  ENA
sd  disk13-01    lh2oracle03-01  disk13  0          292608  3/0    c1t5d16  ENA
sd  disk17-01    lh2oracle03-01  disk17  0          292608  4/0    c1t5d20  ENA
sd  disk21-01    lh2oracle03-01  disk21  0          292608  5/0    c1t5d24  ENA
sd  disk25-01    lh2oracle03-01  disk25  0          292608  6/0    c1t5d28  ENA
sd  disk03-01    lh2oracle03-01  disk03  0          292608  7/0    c3t4d6   ENA
sd  disk07-01    lh2oracle03-01  disk07  0          292608  8/0    c3t4d10  ENA
sd  disk11-01    lh2oracle03-01  disk11  0          292608  9/0    c3t4d14  ENA
sd  disk15-01    lh2oracle03-01  disk15  0          292608  10/0   c3t4d18  ENA
sd  disk19-01    lh2oracle03-01  disk19  0          292608  11/0   c3t4d22  ENA
sd  disk23-01    lh2oracle03-01  disk23  0          292608  12/0   c3t4d26  ENA
sd  disk27-01    lh2oracle03-01  disk27  0          292608  13/0   c3t4d30  ENA

Disk group: sc_dg

DG NAME      NCONFIG      NLOG      MINORS      GROUP-ID
DM NAME      DEVICE       TYPE      PRIVLEN     PUBLEN     STATE
V NAME       USETYPE     KSTATE    STATE       LENGTH     READPOL   PREFPLEX
PL NAME      VOLUME      KSTATE    STATE       LENGTH     LAYOUT    NCOL/WID  MODE
SD NAME      PLEX        DISK      DISKOFFS    LENGTH     [COL/]OFF DEVICE     MODE

dg sc_dg     default      default    57000      973191464.1351.ha1

dm combo1@5.17  c3t4d2s2    sliced    4095      4182016   -
dm combo2@5.17  c4t4d2s2    sliced    4095      4182016   -

v  ccdvol      fsgen          ENABLED  ACTIVE  20000  SELECT  -
pl  ccdvol-01  ccdvol        ENABLED  ACTIVE  20000  CONCAT  -          RW
sd  combo1@5.17-01  ccdvol-01  combo1@5.17  0      20000  0      c3t4d2   ENA
pl  ccdvol-02  ccdvol        ENABLED  ACTIVE  20000  CONCAT  -          RW
sd  combo2@5.17-01  ccdvol-02  combo2@5.17  0      20000  0      c4t4d2   ENA

```

Draft

Install and Patch Sun Cluster software

Before the installation of sun cluster software, verify that all necessary interfaces are detected properly by system, like ge0, hme0 and hme1. To verify these following commands should return successfully without any error or warning.

```
#ifconfig ge0 plumb
#ifconfig hme0 plumb
#ifconfig hme1 plumb
```

If any of these commands fail, then edit /etc/path_to_inst file and remove all entries the failed interface. Then reboot machine.

```
#cp -p /etc/path_to_inst /etc/path_to_inst.bak
#grep -vw hme /etc/path_to_inst.bak > /etc/path_to_inst
#reboot
```

Note down Ethernet address for both machines. Ethernet addresses can be found by following command.

```
#ifconfig ge0
```

Now start installing sun cluster software using following procedure.

```
#cd /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Tools
#./scinstall
```

Here the output of scinstall command is added. You need to **type only bold and underlined text**.

```
#!/scinstall
Installing: SUNWscins

Installation of <SUNWscins> was successful.

        Checking on installed package state
        .....

None of the Sun Cluster software has been installed

        <<Press return to continue>>

==== Install/Upgrade Software Selection Menu =====
Upgrade to the latest Sun Cluster Server packages or select package
sets for installation. The list of package sets depends on the Sun
Cluster packages that are currently installed.

Choose one:
1) Upgrade           Upgrade to Sun Cluster 2.2 Server packages
2) Server            Install the Sun Cluster packages needed on a server
3) Client            Install the admin tools needed on an admin workstation
4) Server and Client Install both Client and Server packages
5) Close             Exit this Menu
6) Quit              Quit the Program
```

```
Enter the number of the package set [6]: 2

What is the path to the CD-ROM image [/cdrom/cdrom0]: /export/home/user/deployteamwork

Installing Server packages

Installing the following packages: SUNWsc1b SUNWsc SUNWccd SUNWcmm SUNWff SUNWmond
SUNWpnm SUNWscman SUNWscf SUNWscmgr

    >>>> Warning <<<<
    The installation process will run several scripts as root. In
    addition, it may install setUID programs. If you choose automatic
    mode, the installation of the chosen packages will proceed without
    any user interaction. If you wish to manually control the install
    process you must choose the manual installation option.

Choices:
  manual      Interactively install each package
  automatic   Install the selected packages with no user interaction.

In addition, the following commands are supported:
  list        Show a list of the packages to be installed
  help        Show this command summary
  close       Return to previous menu
  quit        Quit the program

Install mode [manual automatic] [automatic]: automatic

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Installation of <SUNWsc1b> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Modifying /etc/rpc

Installation of <SUNWsc> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Installation of <SUNWccd> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Installation of <SUNWcmm> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Modifying /etc/devlink.tab

Installation of <SUNWff> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Modifying /etc/inet/inetd.conf
Modifying /etc/inet/services
cp: cannot create /etc/inet/services.ORIG: No such file or directory
Dec 11 14:23:18 haz inetd[1247]: clustmon/tcp: unknown service

Installation of <SUNWmond> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Installation of <SUNWpnm> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Installation of <SUNWscman> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
```

```
Processing package instance <SUNWscf> from
</export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product>

Sun Cluster Configuration Database
(sparc) 2.2,REV=1999.02.09.23.00
Copyright 1999 Sun Microsystems, Inc. All rights reserved.
Copyright 1999 Sun Microsystems, Inc. Tous droits réservés.
Using </> as the package base directory.
## Processing package information.
## Processing system information.
    4 package pathnames are already properly installed.
## Verifying package dependencies.

Installing Sun Cluster Configuration Database as <SUNWscf>

## Installing part 1 of 1.
/etc/init.d/rootreserve
/etc/opt/SUNWcluster/conf/TEMPLATE.cdb
/etc/opt/SUNWcluster/conf/ccd.TEMPLATE.init
/etc/opt/SUNWcluster/conf/cdb.filter
/etc/opt/SUNWcluster/conf/dataservices
/etc/opt/SUNWcluster/conf/ha.ccd
/opt/SUNWcluster/bin/dns_sync_wrapper
/opt/SUNWcluster/bin/nshttp_sync_wrapper
/opt/SUNWcluster/bin/nsmail_sync_wrapper
/opt/SUNWcluster/bin/nsnews_sync_wrapper
[ verifying class <none> ]
/etc/rc0.d/K60rootreserve <linked pathname>
/etc/rc2.d/S27rootreserve <linked pathname>
Modifying /etc/group
[ verifying class <sed> ]
## Executing postinstall script.

Installation of <SUNWscf> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product

Installation of <SUNWscmgr> was successful.

    Checking on installed package state
    .....

Volume Manager Selection

Please choose the Volume Manager that will be used
on this node:

1) Cluster Volume Manager (CVM)
2) Sun StorEdge Volume Manager (SSVM)
3) Solstice DiskSuite (SDS)
Choose the Volume Manager: 2

-----WARNING-----
The Sun StorEdge Volume Manager (SSVM) will need to be
installed before the cluster can be started.

    <<Press return to continue>>

What is the name of the cluster? sc-cluster
How many potential nodes will sc-cluster have [4]? 2
How many of the initially configured nodes will be active [2]? 2
What type of network interface will be used for this configuration (ether|SCI)
[SCI]? ether
```



```
What is the hostname of node 0 [node0]? ha1

What is ha1's first private network interface [hme0]? hme0

What is ha1's second private network interface [hme1]? hme1

You will now be prompted for ethernet addresses of
the host. There is only one ethernet address for each host
regardless of the number of interfaces a host has. You can get
this information in one of several ways:

1. use the 'banner' command at the ok prompt,
2. use the 'ifconfig -a' command (need to be root),
3. use ping, arp and grep commands. ('ping Exxon; arp -a | grep Exxon')

Ethernet addresses are given as six hexadecimal bytes separated
by colons. (ie, 01:23:45:67:89:ab)

What is ha1's ethernet address? xx:xx:xx:xx:xx:xx

((NOTE: Please use Ethernet address you noted as output of ifconfig command.))
What is the hostname of node 1 [node1]? ha2

What is ha2's first private network interface [hme0]? hme0

What is ha2's second private network interface [hme1]? hme1

You will now be prompted for ethernet addresses of
the host. There is only one ethernet address for each host
regardless of the number of interfaces a host has. You can get
this information in one of several ways:

1. use the 'banner' command at the ok prompt,
2. use the 'ifconfig -a' command (need to be root),
3. use ping, arp and grep commands. ('ping Exxon; arp -a | grep Exxon')

Ethernet addresses are given as six hexadecimal bytes separated
by colons. (ie, 01:23:45:67:89:ab)

What is ha2's ethernet address? xx:xx:xx:xx:xx:xx

Will this cluster support any HA data services (yes/no) [yes]? yes
Okay to set up the logical hosts for those HA services now (yes/no) [yes]? yes

What is the primary public network controller for "ha1"? ge0
What is the primary public network controller for "ha2"? ge0
Does the cluster serve any secondary public subnets (yes/no) [no]? no

Initialize NAFO on "ha2" with one ctlr per group (yes/no) [yes]? yes
Attempting to run pnmset ... done

Enter the list of logical hosts you want to add (one per line):

Logical host (^D to finish): lh1
Logical host (^D to finish): lh2
Logical host (^D to finish): ^D ((Press ctrl D here))

The list of logical hosts is:
lh1
lh2

Is this list correct (yes/no) [yes]? yes

What is the name of the default master for "lh1"? ha1
Enable automatic failback for "lh1" (yes/no) [no]? no
```

Disk group name for logical host "lh1" [lh1]? lh1
Is it okay to add logical host "lh1" now (yes/no) [yes]? yes

What is the name of the default master for "lh2"? ha2
Enable automatic failback for "lh2" (yes/no) [no]? no
Disk group name for logical host "lh2" [lh2]? lh2
Is it okay to add logical host "lh2" now (yes/no) [yes]? yes

Performing Quorum Selection

Checking node status...
Checking host hal ...
hal.lab.home.net is alive

One of the specified hosts is either unreachable or permissions are not set up or the appropriate software has not been installed on it. In this situation, it is not possible to determine the set of devices attached to both the hosts.
Note that both private and shared devices for this host will be displayed in this node and the administrator must exercise extreme caution in choosing a suitable quorum device.

Getting device information for host ha2
This may take a few seconds to a few minutes...done
Select quorum device for hal and ha2.
Type the number corresponding to the desired selection.
For example: 1

- 1) DISK:c0t6d0s2:12/12/97
- 2) DISK:clt5d0s2:00071ce60000002139fdc1f3
- 3) DISK:clt5d12s2:00071ce60000002739fdc789
- 4) DISK:clt5d13s2:00071ce60000002839fdc7c1
- 5) DISK:clt5d16s2:00071ce60000002939fdc84a
- 6) DISK:clt5d17s2:00071ce60000002a39fdc878
- 7) DISK:clt5d1s2:00071ce60000002239fdc2a6
- 8) DISK:clt5d20s2:00071ce60000002b39fdcae7
- 9) DISK:clt5d21s2:00071ce60000002c39fdcb18
- 10) DISK:clt5d24s2:00071ce60000002d39fdcbad
- 11) DISK:clt5d25s2:00071ce60000002e39fdcbce0
- 12) DISK:clt5d28s2:00071ce60000002f39fdf762
- 13) DISK:clt5d29s2:00071ce60000003039fdf7bd
- 14) DISK:clt5d4s2:00071ce60000002339fdc337
- 15) DISK:clt5d5s2:00071ce60000002439fdc360
- 16) DISK:clt5d8s2:00071ce60000002539fdc508
- 17) DISK:clt5d9s2:00071ce60000002639fdc532
- 18) DISK:c2t5d0s2:000749940000002739fdc104
- 19) DISK:c2t5d12s2:000749940000002d39fdc75d
- 20) DISK:c2t5d13s2:000749940000002e39fdc79d
- 21) DISK:c2t5d16s2:000749940000002f39fdc830
- 22) DISK:c2t5d17s2:000749940000003039fdc864
- 23) DISK:c2t5d1s2:000749940000002839fdc23a
- 24) DISK:c2t5d20s2:000749940000003139fdcb3c
- 25) DISK:c2t5d21s2:000749940000003239fdcb73
- 26) DISK:c2t5d24s2:000749940000003339fdcc11
- 27) DISK:c2t5d25s2:000749940000003439fdcc4a
- 28) DISK:c2t5d28s2:000749940000003539fdf7e7
- 29) DISK:c2t5d29s2:000749940000003639fdf841
- 30) DISK:c2t5d4s2:000749940000002939fdc2d9
- 31) DISK:c2t5d5s2:000749940000002a39fdc306
- 32) DISK:c2t5d8s2:000749940000002b39fdc4cd
- 33) DISK:c2t5d9s2:000749940000002c39fdc4f5
- 34) DISK:c3t4d10s2:00073a060000001f39fdc48f
- 35) DISK:c3t4d11s2:00073a060000002039fdc4ba
- 36) DISK:c3t4d14s2:00073a060000002139fdc720
- 37) DISK:c3t4d15s2:00073a060000002239fdc74d
- 38) DISK:c3t4d18s2:00073a060000002339fdc9ac
- 39) DISK:c3t4d19s2:00073a060000002439fdc9e8
- 40) DISK:c3t4d22s2:00073a060000002539fdca7c
- 41) DISK:c3t4d23s2:00073a060000002639fdcaad

```
42) DISK:c3t4d26s2:00073a060000002739fdf7d3
43) DISK:c3t4d27s2:00073a060000002839fdf824
44) DISK:c3t4d2s2:00073a060000001b39fdc219
45) DISK:c3t4d30s2:00073a060000002939fdf901
46) DISK:c3t4d31s2:00073a060000002a39fdf956
47) DISK:c3t4d3s2:00073a060000001c39fdc23f
48) DISK:c3t4d6s2:00073a060000001d39fdc3db
49) DISK:c3t4d7s2:00073a060000001e39fdc412
50) DISK:c4t4d10s2:00071bfe0000002139fdc5ea
51) DISK:c4t4d11s2:00071bfe0000002239fdc613
52) DISK:c4t4d14s2:00071bfe0000002339fdc892
53) DISK:c4t4d15s2:00071bfe0000002439fdc8c5
54) DISK:c4t4d18s2:00071bfe0000002539fdbc92
55) DISK:c4t4d19s2:00071bfe0000002639fdbcdb6
56) DISK:c4t4d22s2:00071bfe0000002739fdcc71
57) DISK:c4t4d23s2:00071bfe0000002839fdccal
58) DISK:c4t4d26s2:00071bfe0000002939fdf655
59) DISK:c4t4d27s2:00071bfe0000002a39fdf69d
60) DISK:c4t4d2s2:00071bfe0000001d39fdc349
61) DISK:c4t4d30s2:00071bfe0000002b39fdf77d
62) DISK:c4t4d31s2:00071bfe0000002c39fdf7dc
63) DISK:c4t4d3s2:00071bfe0000001e39fdc374
64) DISK:c4t4d6s2:00071bfe0000001f39fdc533
65) DISK:c4t4d7s2:00071bfe0000002039fdc568
```

Quorum device: **65**

((NOTE: Please make sure that on both node you will select same node as quorum))
Disk **c4t4d7s2** with serial id 00071bfe0000002039fdc568 has been chosen
as the quorum device.

Finished Quorum Selection

Installing ethernet Network Interface packages.

What is the path to the CD-ROM image [/export/home/user/deployteamwork]:
/export/home/user/deployteamwork

Installing the following packages: SUNWsm

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Modifying /etc/devlink.tab
Modifying /etc/inet/services
Modifying /etc/inet/inetd.conf

... SUNWsm: postinstall complete

Installation of <SUNWsm> was successful.

Checking on installed package state

.....
.....

==== Select Data Services Menu =====

Please select which of the following data services
are to be installed onto this cluster. Select singly,
or in a space separated list.

Note: Sun Cluster HA for NFS and Sun Cluster for Informix XPS
are installed automatically with the Server Framework.

You may de-select a data service by selecting it
a second time.

Select DONE when finished selecting the configuration.

- 1) Sun Cluster HA for Oracle
- 2) Sun Cluster HA for Informix
- 3) Sun Cluster HA for Sybase
- 4) Sun Cluster HA for Netscape
- 5) Sun Cluster HA for Netscape LDAP
- 6) Sun Cluster HA for Lotus
- 7) Sun Cluster HA for Tivoli
- 8) Sun Cluster HA for SAP
- 9) Sun Cluster HA for DNS

INSTALL 10) No Data Services
11) DONE

Choose a data service: 1 9

==== Select Data Services Menu =====

Please select which of the following data services are to be installed onto this cluster. Select singly, or in a space separated list.
Note: Sun Cluster HA for NFS and Sun Cluster for Informix XPS are installed automatically with the Server Framework.

You may de-select a data service by selecting it a second time.

Select DONE when finished selecting the configuration.

- INSTALL 1) Sun Cluster HA for Oracle
2) Sun Cluster HA for Informix
3) Sun Cluster HA for Sybase
4) Sun Cluster HA for Netscape
5) Sun Cluster HA for Netscape LDAP
6) Sun Cluster HA for Lotus
7) Sun Cluster HA for Tivoli
8) Sun Cluster HA for SAP
INSTALL 9) Sun Cluster HA for DNS
- 10) No Data Services
11) DONE

Choose a data service: 11

What is the path to the CD-ROM image [/export/home/user/deployteamwork]:
/export/home/user/deployteamwork

Installing Data Service packages.

Installing the following packages: SUNWscpro SUNWscds SUNWscor SUNWscativ SUNWscdns

>>>> Warning <<<<

The installation process will run several scripts as root. In addition, it may install setUID programs. If you choose automatic mode, the installation of the chosen packages will proceed without any user interaction. If you wish to manually control the install process you must choose the manual installation option.

Choices:

- manual Interactively install each package
- automatic Install the selected packages with no user interaction.

In addition, the following commands are supported:

- list Show a list of the packages to be installed
- help Show this command summary
- close Return to previous menu
- quit Quit the program

```
Install mode [manual automatic] [automatic]: automatic

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Installation of <SUNWscpro> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Installation of <SUNWscds> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Purified ccd file written to /etc/opt/SUNWcluster/conf/ccd.database.pure
There were 0 errors found.

Installation of <SUNWscor> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Purified ccd file written to /etc/opt/SUNWcluster/conf/ccd.database.pure
There were 0 errors found.

Installation of <SUNWscativ> was successful.

Package directory: /export/home/user/deployteamwork/Sun_Cluster_2_2/Sol_2.6/Product
Purified ccd file written to /etc/opt/SUNWcluster/conf/ccd.database.pure
There were 0 errors found.

Installation of <SUNWscdns> was successful.

      Checking on installed package state
      .....

===== Main Menu =====

1) Install/Upgrade - Install or Upgrade Server
                    Packages or Install Client Packages.
2) Remove          - Remove Server or Client Packages.
3) Change          - Modify cluster or data service configuration
4) Verify          - Verify installed package sets.
5) List            - List installed package sets.

6) Quit            - Quit this program.
7) Help            - The help screen for this menu.

Please choose one of the menu items: [7]: 6
==== Verify Package Installation =====
Installation
  All of the install      packages have been installed
Framework
  None of the client      packages have been installed
  All of the server       packages have been installed
Communications
  All of the SMA          packages have been installed
Data Services
  All of the Sun Cluster HA for Oracle packages have been installed
  None of the Sun Cluster HA for Informix packages have been installed
  None of the Sun Cluster HA for Sybase packages have been installed
  None of the Sun Cluster HA for Netscape packages have been installed
  None of the Sun Cluster HA for Netscape LDAP packages have been installed
  None of the Sun Cluster HA for Lotus packages have been installed
  All of the Sun Cluster HA for Tivoli packages have been installed
  None of the Sun Cluster HA for SAP packages have been installed
  All of the Sun Cluster HA for DNS packages have been installed
  None of the Sun Cluster for Oracle Parallel Server packages have been installed
```

After installing sun cluster software it is require to patch. Following procedure to patch sun cluster software.

```
#cd /export/home/user/deployteamwork/install
#cd patches/q4-productpatchlist
#./unpack-to-tmp scluster2.2_q4
#cd /tmp/q1-update/patches/scluster2.2_q4
#for I in 10*
#./install_cluster
```

These commands will install following patches to the system.

107388-03	108086-01	108347-01	108427-01
108505-01	108524-01	107748-02	108095-01
108349-01	108439-01	108506-02	108526-01
107750-01	108109-01	108397-01	108441-02
108508-04	108938-01	107761-04	108190-01
108399-01	108443-02	108510-01	107763-02
108215-01	108421-01	108445-02	108518-02
107931-02	108287-02	108423-02	108450-01
108519-01	108034-01	108291-02	108425-01
108503-02	108520-01		

While installing above patches patch 107763-02 and 108423-02 fails. Reinstall these patches again by following command.

```
# cd /tmp/q1-update/patches/suncluster/107763-02
#./installpatch 107763-02
#cd /tmp/q1-update/patches/suncluster/108423-02
#./installpatch 108423-02
```

Configure cluster to use ccd volume on both node.

```
#/opt/SUNWcluster/bin/scconf sc-cluster -S ccdvol
```

Configure sc_dg disk group to store ccd volume. Follow this procedure on **one node only**.

```
#/opt/SUNWcluster/bin/confccdssa sc-cluster
```

Follow this procedure on both nodes.

```
#mkdir /etc/opt/SUNWcluster/conf/hanfs
#cd /export/home/user/deployteamwork/
#cd install/vxvm-install/V2.7/step6-vfstab
#cp -p vfstab.lh1-V2.7 /etc/opt/SUNWcluster/conf/hanfs/vfstab.lh1
#cp -p vfstab.lh2-v2.7 /etc/opt/SUNWcluster/conf/hanfs/vfstab.lh2
```

Edit /.profile file and add the /opt/SUNWcluster/bin directory to PATH environment variable on both nodes.

```
#reboot
```

Now installation of sun cluster software is finished.

Installation Verification

After performing all these steps now server is ready for installation of applications on it. Before any application installed on the server it is required to check installation. Following is a procedure for verification of installation.

Hardware checkout.

```
#/usr/platform/sun4u/sbin/prtdiag -v
```

```
#healthck -a
```

```
Health Check Summary Information
```

```
dd003_001:          Optimal
eb009_001:          Optimal
```

```
healthck succeeded!
```

Output of this command should show you two A3500FC modules are detected and state of **both modules should be optimal**.

```
#lad
c1t5d0 1T94801368 LUNS: 0 1 4 5 8 9 12 13 16 17 20 21 24 25 28 29
c2t5d0 1T94700339 LUNS: 0 1 4 5 8 9 12 13 16 17 20 21 24 25 28 29
c3t4d2 1T94801374 LUNS: 2 3 6 7 10 11 14 15 18 19 22 23 26 27 30 31
c4t4d2 1T94801264 LUNS: 2 3 6 7 10 11 14 15 18 19 22 23 26 27 30 31
```

Output of this command should show **four controller and 64 luns** spread across these four controller.

```
#vxvg list #ON ha1 host
NAME      STATE    ID
rootdg    enabled  973016739.1025.ha1
lh1       enabled  973017407.1237.ha1
lh2       enabled  973017412.1240.ha1
sc_dg     enabled  973191464.1351.ha1

#vxvg list #ON ha2 host
NAME      STATE    ID
rootdg    enabled  976565024.1025.ha2
```

Output of the command should list rootdg disk group on the hosts, and disk group lh1, lh2 and sc-dg on any one of host.

```
#vxdisk list #ON ha1 host
DEVICE      TYPE      DISK      GROUP      STATUS
c0t10d0s2   sliced   -         -         error
c0t10d0s7   simple   c0t10d0s7  rootdg    online
c0t11d0s2   sliced   -         -         error
c0t11d0s7   simple   c0t11d0s7  rootdg    online
c0t12d0s2   sliced   -         -         error
c1t5d0s2    sliced   lh2vol1    lh2       online
c1t5d1s2    sliced   lh1vol1    lh1       online
c1t5d4s2    sliced   disk01     lh2       online
c1t5d5s2    sliced   disk02     lh1       online
c1t5d8s2    sliced   disk05     lh2       online
c1t5d9s2    sliced   disk06     lh1       online
c1t5d12s2   sliced   disk09     lh2       online
c1t5d13s2   sliced   disk10     lh1       online
c1t5d16s2   sliced   disk13     lh2       online
c1t5d17s2   sliced   disk14     lh1       online
c1t5d20s2   sliced   disk17     lh2       online
c1t5d21s2   sliced   disk18     lh1       online
c1t5d24s2   sliced   disk21     lh2       online
c1t5d25s2   sliced   disk22     lh1       online
c1t5d28s2   sliced   disk25     lh2       online
c1t5d29s2   sliced   disk26     lh1       online
c2t5d0s2    sliced   lh2volm    lh2       online
c2t5d1s2    sliced   lh1volm    lh1       online
c2t5d4s2    sliced   disk101    lh2       online
c2t5d5s2    sliced   disk102    lh1       online
c2t5d8s2    sliced   disk105    lh2       online
c2t5d9s2    sliced   disk106    lh1       online
c2t5d12s2   sliced   disk109    lh2       online
c2t5d13s2   sliced   disk110    lh1       online
c2t5d16s2   sliced   disk113    lh2       online
c2t5d17s2   sliced   disk114    lh1       online
c2t5d20s2   sliced   disk117    lh2       online
c2t5d21s2   sliced   disk118    lh1       online
c2t5d24s2   sliced   disk121    lh2       online
c2t5d25s2   sliced   disk122    lh1       online
c2t5d28s2   sliced   disk125    lh2       online
c2t5d29s2   sliced   disk126    lh1       online
c3t4d2s2    sliced   combol@5.17  sc_dg    online
c3t4d3s2    sliced   -         -         online
c3t4d6s2    sliced   disk03     lh2       online
c3t4d7s2    sliced   disk04     lh1       online
c3t4d10s2   sliced   disk07     lh2       online
c3t4d11s2   sliced   disk08     lh1       online
c3t4d14s2   sliced   disk11     lh2       online
c3t4d15s2   sliced   disk12     lh1       online
c3t4d18s2   sliced   disk15     lh2       online
c3t4d19s2   sliced   disk16     lh1       online
c3t4d22s2   sliced   disk19     lh2       online
c3t4d23s2   sliced   disk20     lh1       online
c3t4d26s2   sliced   disk23     lh2       online
c3t4d27s2   sliced   disk24     lh1       online
c3t4d30s2   sliced   disk27     lh2       online
c3t4d31s2   sliced   disk28     lh1       online
```



```

c4t4d2s2    sliced    combo2@5.17  sc_dg    online
c4t4d3s2    sliced    -            -        online
c4t4d6s2    sliced    disk103     lh2      online
c4t4d7s2    sliced    disk104     lh1      online
c4t4d10s2   sliced    disk107     lh2      online
c4t4d11s2   sliced    disk108     lh1      online
c4t4d14s2   sliced    disk111     lh2      online
c4t4d15s2   sliced    disk112     lh1      online
c4t4d18s2   sliced    disk115     lh2      online
c4t4d19s2   sliced    disk116     lh1      online
c4t4d22s2   sliced    disk119     lh2      online
c4t4d23s2   sliced    disk120     lh1      online
c4t4d26s2   sliced    disk123     lh2      online
c4t4d27s2   sliced    disk124     lh1      online
c4t4d30s2   sliced    disk127     lh2      online
c4t4d31s2   sliced    disk128     lh1      online

```

Output of this command should show all **disks online**. None of disk should have status failing or disable or sync.

```
#vxprint -vt #ON ha1 only
```

```
Disk group: lh1
```

V	NAME	USETYPE	KSTATE	STATE	LENGTH	READPOL	PREFPLEX
v	dircache	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	imail	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	imaillog	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	imailqueue	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	lh1-vol	fsgen	ENABLED	ACTIVE	1500	SELECT	-
v	msg01	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg02	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg03	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg04	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg05	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg06	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg07	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg08	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg09	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg10	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg11	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg12	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg13	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg14	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg15	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg16	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg17	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg18	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg19	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg20	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg21	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg22	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg23	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg24	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg25	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg26	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg27	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg28	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg29	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg30	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg31	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg32	fsgen	ENABLED	ACTIVE	18432000	SELECT	-
v	msg33	fsgen	ENABLED	ACTIVE	18432000	SELECT	-

```
v msg34      fsgen      ENABLED  ACTIVE  18432000 SELECT  -
v msg35      fsgen      ENABLED  ACTIVE  18432000 SELECT  -
v msg36      fsgen      ENABLED  ACTIVE  18432000 SELECT  -
v msg37      fsgen      ENABLED  ACTIVE  18432000 SELECT  -
v msg38      fsgen      ENABLED  ACTIVE  18432000 SELECT  -
v msg39      fsgen      ENABLED  ACTIVE  18432000 SELECT  -
v msg40      fsgen      ENABLED  ACTIVE  18432000 SELECT  -
v msg41      fsgen      ENABLED  ACTIVE  18432000 SELECT  -
```

Disk group: lh2

V	NAME	USETYPE	KSTATE	STATE	LENGTH	READPOL	PREFPLEX
v	bmc	fsgen	ENABLED	ACTIVE	2048000	SELECT	bmc-01
v	lh2-vol	fsgen	ENABLED	ACTIVE	3072000	SELECT	-
v	lh2oracle01	fsgen	ENABLED	ACTIVE	153600000	SELECT	-
v	lh2oracle02	fsgen	ENABLED	ACTIVE	51200000	SELECT	-
v	lh2oracle03	fsgen	ENABLED	ACTIVE	4096000	SELECT	-

Disk group: sc_dg

V	NAME	USETYPE	KSTATE	STATE	LENGTH	READPOL	PREFPLEX
v	ccdvol	fsgen	ENABLED	ACTIVE	20000	SELECT	-

Output of this command will list status of all volumes available on system. Make sure that all volumes have state **active and enable**.

```
#vxprint -pt
Disk group: lh1
```

PL	NAME	VOLUME	KSTATE	STATE	LENGTH	LAYOUT	NCOL/WID	MODE
pl	dircache-01	dircache	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	dircache-02	dircache	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	imail-01	imail	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	imail-02	imail	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	imaillog-01	imaillog	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	imaillog-02	imaillog	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	imailqueue-01	imailqueue	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	imailqueue-02	imailqueue	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	lh1-vol-01	lh1-vol	ENABLED	ACTIVE	1500	CONCAT	-	RW
pl	lh1-vol-02	lh1-vol	ENABLED	ACTIVE	1500	CONCAT	-	RW
pl	msg01-01	msg01	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg01-02	msg01	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg02-01	msg02	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg02-02	msg02	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg03-01	msg03	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg03-02	msg03	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg04-01	msg04	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg04-02	msg04	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg05-01	msg05	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg05-02	msg05	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg06-01	msg06	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg06-02	msg06	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg07-01	msg07	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg07-02	msg07	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg08-01	msg08	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg08-02	msg08	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg09-01	msg09	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg09-02	msg09	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg10-01	msg10	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg10-02	msg10	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg11-01	msg11	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg11-02	msg11	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg12-01	msg12	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg12-02	msg12	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg13-01	msg13	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl	msg13-02	msg13	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW

pl msg14-01	msg14	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg14-02	msg14	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg15-01	msg15	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg15-02	msg15	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg16-01	msg16	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg16-02	msg16	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg17-01	msg17	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg17-02	msg17	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg18-01	msg18	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg18-02	msg18	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg19-01	msg19	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg19-02	msg19	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg20-01	msg20	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg20-02	msg20	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg21-01	msg21	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg21-02	msg21	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg22-01	msg22	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg22-02	msg22	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg23-01	msg23	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg23-02	msg23	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg24-01	msg24	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg24-02	msg24	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg25-01	msg25	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg25-02	msg25	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg26-01	msg26	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg26-02	msg26	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg27-01	msg27	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg27-02	msg27	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg28-01	msg28	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg28-02	msg28	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg29-01	msg29	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg29-02	msg29	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg30-01	msg30	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg30-02	msg30	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg31-01	msg31	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg31-02	msg31	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg32-01	msg32	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg32-02	msg32	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg33-01	msg33	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg33-02	msg33	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg34-01	msg34	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg34-02	msg34	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg35-01	msg35	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg35-02	msg35	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg36-01	msg36	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg36-02	msg36	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg37-01	msg37	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg37-02	msg37	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg38-01	msg38	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg38-02	msg38	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg39-01	msg39	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg39-02	msg39	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg40-01	msg40	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg40-02	msg40	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg41-01	msg41	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW
pl msg41-02	msg41	ENABLED	ACTIVE	18432512	STRIPE	14/128	RW

Disk group: lh2

PL NAME	VOLUME	KSTATE	STATE	LENGTH	LAYOUT	NCOL/WID	MODE
pl bmc-01	bmc	ENABLED	ACTIVE	2048256	STRIPE	14/128	RW
pl lh2-vol-00	lh2-vol	ENABLED	ACTIVE	3072000	CONCAT	-	RW
pl lh2-vol-02	lh2-vol	ENABLED	ACTIVE	3072000	CONCAT	-	RW
pl lh2oracle01-01	lh2oracle01	ENABLED	ACTIVE	153601280	STRIPE	14/128	RW
pl lh2oracle01-02	lh2oracle01	ENABLED	ACTIVE	153601280	STRIPE	14/128	RW
pl lh2oracle02-01	lh2oracle02	ENABLED	ACTIVE	51201024	STRIPE	14/128	RW
pl lh2oracle02-02	lh2oracle02	ENABLED	ACTIVE	51201024	STRIPE	14/128	RW
pl lh2oracle03-01	lh2oracle03	ENABLED	ACTIVE	4096512	STRIPE	14/128	RW
pl lh2oracle03-02	lh2oracle03	ENABLED	ACTIVE	4096512	STRIPE	14/128	RW

Disk group: sc_dg

PL NAME	VOLUME	KSTATE	STATE	LENGTH	LAYOUT	NCOL/WID	MODE
pl ccdvol-01	ccdvol	ENABLED	ACTIVE	20000	CONCAT	-	RW
pl ccdvol-02	ccdvol	ENABLED	ACTIVE	20000	CONCAT	-	RW

Output of this command will list all plex on system. Make sure that all plex have **state active and enabled**.

```
#grep -i error /var/adm/messages
```

There should not be any error in log.

```
#cat /var/osa/rm.log
```

Check for any **data path** failure in log.

```
#rdacutil -i c1t5d0
#rdacutil -i c2t5d0
#raidutil -c c1t5d0 -i
#raidutil -c c2t5d0 -i
```

Any of the above command should not report drive failure.

```
#ifconfig -a
```

Check that this command will show three interface **ge0, hme0 and hme1**. Hme0 and hme1 will only appear if suncluster software is started.

```
#pkginfo -l SUNWvxvm
#pkginfo -l VRTSvxfs
#pkginfo -l SUNWvts
#pkginfo -l SUNWbtool
#uname -a
```

Verify `SUNWvxvm`, `SUNWvxvm`, `SUNWvts`, `SUNWarc`, `SUNWbtool` and `SUNWhea` packages were installed. Check version 2.5.6d for `SUNWvxvm` package. Check for version 3.3.2 and pstamp 12-02-1999 for `VRTSvxfs` package. Check for kernel patch level greater than -19 in `uname` command.

Install and verify Sun Validation and Testing Software (`sunvts`).

```
#cd /export/home/user/deployteamwork/install/server
#./unpack-to-tmp
#cd /tmp/q1-update/server/pkgadds/sunvts
#pkgadd -d SUNWvts-213-ATHM.pkg
#cd /export/home/user/install/patches
#./unpack-to-tmp
#cd /tmp/q1-update/patches/vts
#patchadd -u 106387-04
#patchadd -u 107542-01
#cd /tmp/q1-update/server/pkgadds/java-1.2.1_04
#pkgadd -d SUNWj2.pkg
#cd /tmp/q1-update/server/pkgadds/setoolkit
```

```
#pkgadd -d SEToolkit.pkg
#cd /tmp/q1-update/server/sun-explorer
#cp /export/home/user/install/server/sun-explorer/*.tgz .
#./install_explorer
#./run-explorer
#cd /export/home/deployteamwork/vartmp
#pkgadd -d . SUNWarc SUNWbtool SUNWhea
```

To verify that we did all correct and sun cluster software is working we need to do fail over test. This can be done by start cluster software on both node and failing over logical host from ha1 to ha2 and back again. One can verify status of cluster by command hastat.

Start cluster on ha1. (Here it is assumed that cluster is not running on any of node at this stage).

```
#scadmin startcluster ha1 sc-cluster
```

Start cluster on ha2 node.

```
#scadmin startnode
```

Now both servers are participating in a cluster and logical hosts can fail over on each other.

```
Ha1#haswitch ha2 lh1 lh2
Ha1#scadmin stopnode
Ha1#reboot
Ha1#scadmin startnode
Ha2#haswitch ha1 lh1 lh2
Ha2#scadmin stopnode
Ha2#reboot
Ha2#scadmin startnode
Ha2#haswitch ha2 lh1
```

If these commands returns successfully then can say that logical hosts can fail over successfully between nodes. Between this commands give hastat command and verify status of cluster.

Verify /etc/hosts and /etc/hosts.allow files.

```
#cat /etc/hosts
#cat /etc/hosts.allow
```

Make sure there is no ip address appears from ip addresses allocated for lab. OR should not contain any IP address entry that was made only for installation purpose by deployment team member. OR Sundist (24.0.10.10) should NOT be in the file.

There should not be any file .shosts in root directory. If it is there then remove it.

```
#ls /.shosts  
#rm /.shosts
```

Verify /.rhosts file.

```
#cat /.rhosts  
ha1 root  
ha2 root  
ha1-priv1 root  
ha1-priv2 root  
ha2-priv1 root  
ha2-priv2 root
```

```
# node 1  
204.152.65.1  
204.152.65.33  
204.152.65.17
```

```
# node 2  
204.152.65.2  
204.152.65.34  
204.152.65.18
```

There should not be any other entry then above one. OR any other private network hosts.

Verify data services registered with cluster and if following data services are not registered then register it.

```
#hareg
```

This command will list all the services registered in a cluster. You should see only dns, oracle, tivoli, syslog and monitor data services in SDC cluster. There should not be any other services.

If any of service is not register then register it with following procedure.

```
#cd /opt/ATHMhads/ha/monitor  
#./monitor.doit  
#cd /opt/ATHMhads/ha/syslog  
#./syslog.doit  
#cd /opt/ATHMhads/ha/oracle  
#./oracle.doit  
#cd /opt/ATHMhads/ha/inmail  
#./intermail.doit  
#hareg -s -r dns  
#hareg -y monitor  
#hareg -y syslog  
#hareg -y oracle  
#hareg -y intermail
```

```
#hareg -y dns
```

```
#hareg -q <service name>
```

Use this command and make sure that there are no multiple hosts registered.

In end of process we need to create dd copy of the boot disk on target-11 disk. Following is procedure for doing it. Make sure that target 11 at D130 has disk in it.

```
#cd /export/home/user/deployteamwork/ddscripts  
#./dd.11script
```

Draft

Appendix A:

This section list items which needs to be done in future.

- Prepare and Include possible list of Error messages during building SDC. Categories these messages in safe to ignore and Needs Action. This should be done in next build of SDC.
- Include Hardware firmware levels in build document.
- All PROM setting to be added in build document.
- Include procedure to verify 'crash dump' is enabled OR not.
- Disable parity check on A3500 and include same procedure in build book.
- Fail over hot spare should be enabled.
- Mirror root disk
- Out put (Console output log) of complete install procedure to be included in build book.
- Install Gigabit Ethernet Driver Package in Master disk. Once this is done procedure for installing Gigabit Ethernet driver should be removed from build book
- Test is it possible to install Raid Manager 6.22 and Sun Storage Volume Manager 2.6 in master disk? Is works properly when clone of master installed in different machine. If it works successfully then, to install both packages in master disk and remove procedure to install this products from build book. Care also to be taken to document for any change of procedure will need from this modifications. e.g different customized script for creating volumes or configuring volumes under volume manager.
- Test whether this cluster configuration can work without SUNWvmdev. If it works then it is removed from master disk and also from the document.
- Find out method to install sun cluster 2.2 in non-interactive mode. I.e Installation get all the desired data from a file.
- These are additional security issues from Anne Hutton and Todd Welch

(NOTE: what follows is not definitive documentation but is meant as an overview of build procedures which incorporate server security reqs).

1.Install Minimum Packages:

Operating system installation should be minimal required to achieve service requirements and troubleshooting aid.

For service application hosts, the development and user package sets are not required (e.g. no compiler, manpage, header-include files).

2.Install Most Recent Patches:

3. Install Security Utilities (and perl):

lsof
top
tcpdump
perl
tripwire
raudit
ipf
tcpwrappers
ssh
rpcbind capable of using wrappers
klaxon
swatch
priv
traceroute

4. Install appropriate System Configuration files:

Appropriately secure versions of the following files should exist, except for /.rhosts and /etc/hosts.equiv which should not exist or should be a link to /dev/null.

* unless .rhosts is needed for clusters

/.profile
/etc/hosts.allow
/etc/hosts.deny
/etc/inetd.conf
/etc/syslog.conf
/etc/ftpusers
/usr/local/etc/priv.conf
/etc/sshd_config
/var/spool/cron/crontabs
/etc/cron.d/cron.deny
/etc/cron.d/at.deny
/etc/system contains security relevant settings.
/etc/notrouter
/etc/nsswitch.conf
/etc/ntp.conf

/etc/hosts.equiv link to /dev/null
.rhosts link to /dev/null.

5. Unnecessary services should be disabled on startup

in /etc/rc2.d and /etc/rc3.d
e.g. nfs

6. Network protocol changes
various protocol settings related to e.g SYN flood attacks
`ndd -set /dev/tcp tcp_conn_req_max_q0 4096`

7. File system ownership and modes
setuid/setgid programs reduced to minimum necessary
ownership/world readability/writeability changed appropriately.

Draft