NAME

stmfadm – SCSI Target Mode Framework Command Line Interface

SYNOPSIS

stmfadm add-hg-member <-g, --group-name group name> group member ...
stmfadm add-tg-member <-g, --group-name group name> group member ...
stmfadm add-view [-n, --lun<logical_unit_number> t(--target-group) <group_name>
h(--host-group) <group_name>] lu name
stmfadm create-hg group name
stmfadm create-tg group name
stmfadm delete-tg group name
stmfadm delete-hg group name
stmfadm list-hg [-v] [group name ...]
stmfadm list-tg [-v] [group name ...]
stmfadm list-lu [-v] [lu name ...]
stmfadm list-target [-v] [target name ...]
stmfadm list-view <-l lu name > [entry name ...]
stmfadm list-state
stmfadm remove-hg-member <-g, --group-name group name> group member ...
stmfadm remove-tg-member <-g, --group-name group name> group member ...
stmfadm remove-view <-l, --lu-name lu name> entry name ...

The stmfadm command configures logical units within the stmf framework as described by stmf(7D).

initiator

A device responsible for issuing SCSI I/O commands to a SCSI target and logical unit.

target

A device responsible for receiving SCSI I/O commands for a logical unit.

logical unit

A device within a target responsible for executing SCSI I/O commands.

logical unit number

The identifier of a logical unit within a target.

initiator group

An initiator group is a set of one or more initiators that are combined together for the purposes of being applied to a view (see views below). Initiators cannot be a member of

more than one initiator group.

target group

A target group is a set of one or more SCSI target ports that are combined together for the purposes of being applied to a view (see views below). target ports cannot be a member of more than one target group.

view

A view defines the association of an initiator group, a target group and a logical unit number with a specified logical unit. Any view entry added to a logical unit must not be in conflict with existing view entries for that logical unit. A view entry is considered to be in conflict when an attempt is made to duplicate the association of any given initiator, target and logical unit number. As an example, logical unit LU_0 has the following view entry associated with it:

```
Logical Unit: LU_0
        View Entry: 0
                initiator group: HostA
                target group: All targets
                logical unit number: 32
```

If a user attempted to apply the following:

```
stmf add-view -l 31 -i HostA LU_0
```

the operation would return an error with a message indicating that the view entry is in conflict with one or more existing view entries. This conflict arises because the existing view entry, 0, already has mapped LU_0 to logical unit number 32 for the initiator group HostA.

SUBCOMMANDS

stmfadm ?

stmfadm add-view

Adds a logical unit view entry to a logical unit lu name where lu name is the stmf name for the logical unit as displayed by the list-lu subcommand. The add-view subcommand provides the user with a mechanism to implement access control for a logical unit and also provides a means of assigning a logical unit number to a logical unit for a given set of initiators and targets. A logical unit will not be available to any initiators until at least one view is applied. Each view entry gets assigned an entry name which can be used to

reference the entry in the remove-view and list-view subcommands.

-l, --lun <logical_unit_number>

logical_unit_number is an integer in the range 0-16383 to be assigned to the logical unit for this view entry. If this option is not specified, a logical unit number will be assigned by the stmf framework.

-t, --target-group <group_name>

group_name is the name of a target group previously created using the stmf create-tg subcommand. If this option is not specified, the logical unit will be available through all targets.

-h, --host-group <group_name>

group_name is the name of an host group previously created using the stmf create-hg subcommand. If the -h, --host-group option is not specified, the logical unit will be available to all initiators that login to the stmf framework.

stmfadm add-hg-member <-g group name> group member ...

Add a host group member to a host group. group_name must be an existing group created using the create-hg subcommand. group_member can be specified as <name_type>=<name_value> where <name_type> can be one of the following:

wwn
iscsi

and <name_value> is the value of the initiator name. As an example, to add a fibre channel initiator port world-wide name 200000e08b909221 to the host group “HostA”, the command would be:

stmf add-hg-member -g HostA wwn=200000e08b909221

To add an iscsi initiator node member with the name iqn.1986-03.com.sun:01.46f7e262, to “HostA”, the command would be:

stmf add-hg-member -g HostA iscsi=iqn.1986-03.com.sun:01.46f7e262

Alternately, members can be specified using their SCSI name string identifiers. To add the two initiators above using their SCSI name string indentifiers, the commands would be:

stmf add-hg-member -g HostA eui.200000e08b909221

stmf add-hg-member -g HostA iqn.1986-03.com.sun:01.46f7e262

Once entered into the system, all host group member names are stored as SCSI name strings. For more information on the SCSI name string identifier format, please see *ANSI*

INCITS 408-2005.

A host group member cannot be a member of more than one host group.

stmfadm add-tg-member <-g group name> group member ...

Add a target group member to a target group. group_name must be an existing group created using the create-hg subcommand. group_member can be specified as <name_type>=<name_value> where <name_type> can be one of the following:

wwn
iscsi

and <name_value> is the value of the target name. As an example, to add a fibre channel target port world-wide name 501000e092376af7 to the target group “TG0”, the command would be:

stmf add-tg-member -g TG0 wwn=501000e092376af7

To add an iscsi target member with the name iqn.1986-03.com.sun:target.01.01110, to “TG0”, the command would be:

stmf add-tg-member -g TG0 iscsi=iqn.1986-03.com.sun:target.01.01110

Alternately, members can be specified using their SCSI name string identifiers. To add the two targets above using their SCSI name string indentifiers, the commands would be:

stmf add-tg-member -g TG0 eui.501000e092376af7

stmf add-tg-member -g TG0 iqn.1986-03.com.sun:target.01.01110

Once entered into the system, all target group member names are stored as SCSI name strings. For more information on the SCSI name string identifier format, please see *ANSI INCITS 408-2005.*

A target group member cannot be a member of more than one target group.

stmfadm create-hg group name

Create an initiator group with the name group name. group name is a string of unicode characters with a maximum length of 255. The group name must be unique within the stmf system.

stmfadm create-tg group name

Create a target group with the name group name. group name is a string of unicode characters with a maximum length of 255. The group name must be unique within the stmf system.

stmfadm delete-hg group name

Delete a target group that is no longer needed.

stmfadm delete-tg group name

Delete a host group that is no longer needed.

stmfadm list-hg

Lists information for the host group in the system referenced by host group name. If host group name is not specified, all host groups in the system will be listed. If the -v option is specified, all members within the host group are displayed.

stmfadm list-target [-v]

Lists information for the target port in the system referenced by target name. If target name is not specified, all target ports in the system will be listed.If the -v option is specified, additional information about the target along with SCSI session information for logged in initiators will be displayed.

stmfadm list-tg [-v]

Lists information for the target group in the system referenced by target group name. If target group name is not specified, all target groups in the system will be listed. If the -v option is specified, all members within the target group are displayed.

stmfadm list-lu lu name [-v]

Lists information for the logical unit in the system referenced by lu_name. If lu_name is not specified, all logical units in the system will be listed. If the -v option is specified, additional information about the logical unit will be displayed.

stmfadm list-view

Lists the view entry for the logical unit referenced by lu-name. If entry name is not specified, all view entries for the specified logical unit will be listed.

stmfadm list-state

Lists the operational and configuration state of stmf.

stmfadm remove-hg-member <-g group name> group member

Removes a host group member from a host group. group_name must be an existing group created using the create-tg subcommand. group_member can be specified as <name_type>=<name_value> where <name_type> can be one of the following:

wwn
iscsi

and <name_value> is the value of the initiator name. As an example, to remove the fibre channel initiator port world-wide name 200000e08b909221 from the host group "HostA", the command would be:

stmf remove-tg-member -g HostA wwn=200000e08b909221

To remove the iscsi initiator node member with the name iqn.1986-03.com.sun:01.46f7e262, from "HostA", the command would be:

stmf remove-tg-member -g HostA iscsi=iqn.1986-03.com.sun:01.46f7e262

Alternately, members can be specified using their SCSI name string identifiers. To remove the two initiators above using their SCSI name string indentifiers, the commands would be:

stmf remove-tg-member -g HostA eui.200000e08b909221

stmf remove-tg-member -g HostA iqn.1986-03.com.sun:01.46f7e262

Once entered into the system, all host group member names are stored as SCSI name strings. For more information on the SCSI name string identifier format, please see *ANSI INCITS 408-2005.*

stmfadm remove-tg-member <-g group name> group member

Removes a target group member from a target group. group_name must be an existing group created using the create-tg subcommand. group_member can be specified as <name_type>=<name_value> where <name_type> can be one of the following:

wwn
iscsi

and <name_value> is the value of the target name. As an example, to remove the fibre channel target port world-wide name 501000e092376af7 from the target group "TG0", the command would be:

stmf remove-tg-member -g TG0 wwn=501000e092376af7

To remove the iscsi target member with the name iqn.1986-03.com.sun:target.01.01110, from "TG0", the command would be:

stmf remove-tg-member -g TG0 iscsi=iqn.1986-03.com.sun:target.01.01110

Alternately, members can be specified using their SCSI name string identifiers. To remove the two targets above using their SCSI name string indentifiers, the commands would be:

stmf remove-tg-member -g TG0 eui.501000e092376af7

stmf remove-tg-member -g TG0 iqn.1986-03.com.sun:target.01.01110

Once entered into the system, all target group member names are stored as SCSI name strings. For more information on the SCSI name string identifier format, please see *ANSI INCITS 408-2005.*

stmf remove-view <-l lu_name> entry_name

Removes one or more logical unit view entries from a logical unit.

EXAMPLES

Example 1 Creating a host group with two initiator ports

The following commands use the create-hg and add-hg-member subcommands to create a host group and add two initiator ports to that host group

stmfadm create-hg host-group-a

stmfadm add-hg-member -g host-group-a wwn.210105b0000d92d0

Example 2 Adding a view entry to a logical unit

The following command uses the add-view subcommand to allow access from host-group-a to a logical unit

stmfadm add-view -h host-group-a 6000AE40C5000000000046FC4FEA001C

Example 3 List a view entry

The following command uses the list-view subcommand to list all view entries for the specified logical unit

```
# stmfadm list-view -l 6000AE40C5000000000046FC4FEA001C
View Entry: 0
        Host group      : host-group-a
        Target group    : All
        LUN             : 0
```

EXIT STATUS

0 Operation was successful

>0 An error occurred.