

OVERVIEW

Three layers of security

Level 1 controlled by security center

**Level 2 distributed by center to authorized host
for authorized disk**

Persistent Reserve requires Level 2 password

Secure Registration defined

Third-party registration defined

Level 1

Disk delivered with default level 1 password

**Disk is programmed with correct level 1 password
at security center**

Level 2

**Any host with level 1 password can set level 2
password in disk**

Normally set by special authorized hosts

Secure Registration and Reservation

Performed by any host with level 2 password

Preemption requires 2nd level password

**Allows third party for secure assignment to
unsecured host that is registered**

PERSISTENT RESERVE OUT Action, with optional Security

Action Code	Action Name	Action Description	Secure
00	Register	Register Reservation Key with target	
01	Reserve	Create Persistent Reservation using Reservation Key	
02	Release	Release Persistent Reservation	
03	(reserved)		
04	Preempt	Pre-empt Persistent Reservation for other initiator	
05	Pre-empt and Clear	Persistent Reservation and Clear Task Set for preempted initiator	
08	Change Passwd 1	Changes Password 1	Secure
09	Set Passwd 2	Sets Password 2	Secure
0A	Secure Register	Register Secure Reservation Key with target	Secure
0B	Secure Reserve	Create Secure Persistent Reservation w/ Reservation Key	Secure
0C	Secure Release	Release Secure Persistent Reservation	Secure
0D	Secure Preempt	Pre-empt Persistent Reservation for other initiator, using password 1	Secure
0E	Secure Preempt and Clear	Persistent Reservation and Clear Task Set for preempted initiator, using password 1	Secure
0F	Secure 3rd Party Reserve	Secure Persistent Reservation established for a normally registered port	Secure
10	Secure 3rd Party Release	Secure Persistent Reservation released	Secure
11-1F	(reserved)		

Secure PERSISTENT RESERVE OUT: Allowed actions and valid parameters

Action	Allowed Scope	Parameters Set by initiator/Expected by target		
		Key 1	Key 2	Param
Register	LU	Key or Pwd 2	New Key	
Reserve	LU	Present Key		
Reserve	Extent	Present Key		Extent
Reserve	Element	Present Key		Element
Release	LU	Present Key		
Release	Extent	Present Key		Extent
Release	Element	Present Key		Element
Preempt	LU	Present Key	Preempted Key	
Preempt	Extent	Present Key	Preempted Key	Extent
Preempt	Element	Present Key	Preempted Key	Element
Pr & Clr	LU	Present Key	Preempted Key	
Pr & Clr	Extent	Present Key	Preempted Key	Extent
Pr & Clr	Element	Present Key	Preempted Key	Element
Ch Pwd 1	LU	Old Pwd 1	New Pwd 1	
St Pwd 2	LU	Pwd 1	New Pwd 2	
Secur Reg	LU	Pwd 2	Secure Key	
Secur Res	LU	Secure Key		
Secur Res	Extent	Secure Key		Extent
Secur Res	Element	Secure Key		Element
Secur Rel	LU	Secure Key		
Secur Rel	Extent	Secure Key		Extent
Secur Rel	Element	Secure Key		Element
Scr Pr	LU	Pwd 1	Preempted Key	
Scr Pr	Extent	Pwd 1	Preempted Key	Extent
Scr Pr	Element	Pwd-1	Preempted Key	Element
S Pr + Clr	LU	Pwd 1	Preempted Key	
	Extent	Pwd 1	Preempted Key	Extent
	Element	Pwd-1	Preempted Key	Element
S 3Pty Res	LU	Pwd-2	Other Port Key	
	Extent	Pwd-2	Other Port Key	Extent
	Element	Pwd-2	Other Port Key	Element
S 3Pty Rel	LU	Pwd-2	Other Port Key	
	Extent	Pwd-2	Other Port Key	Extent
	Element	Pwd-2	Other Port Key	Element

Other Rules

PWD-1

Loose it and send machine back to factory

For PROUT

Once a secure registration is made to a device, only secure reservations can be made.

A host can change a secure registration to a normal registration using Pwd 2.

If compromised, authorized host preempts using Pwd 1 to change Pwd 2

For PRIN

Read Keys presents null information for Secure Reservation Keys.

Read Reservations presents null information for secure reservation key values

Only authorized communicating hosts can manage secure reservations.