

# ENDL TEXAS

Date: 23 June 2006  
 To: T10 Technical Committee  
 From: Ralph O. Weber  
 Subject: SPC-4 Persistent Reservations correction

## Revision History

r0 Initial revision

## Overview

As noted in the two e-mail messages attached to 06-289r0, there is an inconsistency in the definition of the SPEC\_I\_PT bit vis a vis REGISTER AND IGNORE EXISTING KEY service action. The model says the two are incompatible, but the parameter list definition says setting SPEC\_I\_PT bit to one for a REGISTER AND IGNORE EXISTING KEY service action should work.

Two years ago document 03-337r7 (SPC-3 Third party persistent reservations) changed the model. SPC-3 Letter Ballot comment HP 88 was deferred to SPC-4 owing to the lack of sufficient detail in the proposed changes (see 04-355r9).

As of yet, no specific proposals have been made to add support for setting SPEC\_I\_PT bit to one on a REGISTER AND IGNORE EXISTING KEY service action.

This proposal seeks to complete the removal of SPEC\_I\_PT bit support on REGISTER AND IGNORE EXISTING KEY service actions as was agreed during the approval of 03-337r7.

## SPC-4 Changes

All references are to SPC-4 r05a. Additions are shown as **red text**. Deletions are shown as ~~blue strike through text~~.

### 6.12.3 Basic PERSISTENT RESERVE OUT parameter list

...

If the Specify Initiator Ports (SPEC\_I\_PT) bit is set to zero, the device server shall apply the registration only to the I\_T nexus that sent the PERSISTENT RESERVE OUT command. **If the SPEC\_I\_PT bit is set to one for the REGISTER AND IGNORE EXISTING KEY service action, then the command shall be terminated with CHECK CONDITION status, with the sense key set to ILLEGAL REQUEST, and the additional sense code set to INVALID FIELD IN PARAMETER LIST.** If the SPEC\_I\_PT bit is set to one for the REGISTER service action ~~or the REGISTER AND IGNORE EXISTING KEY service action~~, then the additional parameter data (see table 117) shall include a list of transport IDs and the device server shall also apply the registration to the I\_T nexus for each initiator port specified by a TransportID. If a registration fails for any initiator port (e.g., if the logical unit does not have enough resources available to hold the registration information), none of the other registrations shall be made.

...

**Subject:** SPC-4: Persistent Reserve Out Confusion

**From:** "Hubis, Walt" <Walt.Hubis@lsil.com>

**Date:** Thu, 8 Jun 2006 10:43:46 -0600

**To:** <t10@t10.org>

\* From the T10 Reflector ([t10@t10.org](mailto:t10@t10.org)), posted by:  
\* "Hubis, Walt" <[Walt.Hubis@lsil.com](mailto:Walt.Hubis@lsil.com)>  
\*

In SPC4-04, Section 5.6.6 "Registering", Table 34 "Register behaviors for a REGISTER AND IGNORE EXISTING KEY service action", anytime the SERVICE ACTION RESERVATION KEY is non-zero and SPEC\_I\_PT is set to one, a CHECK CONDITION status is to be generated. But in section 6.12.3 "Basic PERSISTENT RESERVE OUT parameter list" states:

"If the SPEC\_I\_PT bit is set to one for the REGISTER service action or the REGISTER AND IGNORE EXISTING KEY service action, then the additional parameter data shall include a list of transport IDs (see table 116) and the device server shall also apply the registration to the I\_T nexus for each initiator port specified by a TransportID. If a registration fails for any initiator port (e.g., if the logical unit does not have enough resources available to hold the registration information), none of the other registrations shall be made."

This seems to be a contradiction - what am I missing here?

Cheers,  
Walt

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\* For T10 Reflector information, send a message with  
\* 'info t10' (no quotes) in the message body to [majordomo@t10.org](mailto:majordomo@t10.org)

**Subject:** RE: SPC-4: Persistent Reserve Out Confusion  
**From:** "Elliott, Robert (Server Storage)" <Elliott@hp.com>  
**Date:** Thu, 8 Jun 2006 13:19:46 -0500  
**To:** <t10@t10.org>

SPEC\_I\_PT used to work with REGISTER AND IGNORE EXISTING KEY, but that combination was removed by the REGISTER AND MOVE service action proposal 03-337 (apparently incompletely). SPC-3 letter ballot comments to reinstate it were rejected, saying a detailed proposal would be needed to make such a change in SPC-4.

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Rob Elliott, [elliott@hp.com](mailto:elliott@hp.com)  
Hewlett-Packard Industry Standard Server Storage Advanced Technology  
<https://ecardfile.com/id/RobElliott>

-----Original Message-----

From: [owner-t10@t10.org](mailto:owner-t10@t10.org) [<mailto:owner-t10@t10.org>] On Behalf  
Of Hubis, Walt  
Sent: Thursday, June 08, 2006 11:44 AM  
To: [t10@t10.org](mailto:t10@t10.org)  
Subject: SPC-4: Persistent Reserve Out Confusion

\* From the T10 Reflector ([t10@t10.org](mailto:t10@t10.org)), posted by:  
\* "Hubis, Walt" <[Walt.Hubis@lsil.com](mailto:Walt.Hubis@lsil.com)>  
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