

# Persistent Reserve In/Out Functionality for Reserve/Release Replacement

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As a result of the proposal to obsolete the Reserve/Release Management method in SPC-3, a desire to document the required PERSISTENT RESERVE OUT functionality necessary to replace the Reserve/Release Management method has arisen (see table 1). Note: PERSISTENT RESERVE IN functionality is not required

**Table 1: Replacement PERSISTENT RESERVE OUT functionality**

Persistent Reserve Out	Code	Required	Notes
<b>Service Action</b>			
REGISTER	00h	Yes <sup>a</sup>	Per SPC-3 clause 5.5.3.1: Before a persistent reservation may be established, an initiator port shall register with a device server using a reservation key.
RESERVE	01h	Yes	
RELEASE	02h	Yes	
CLEAR	03h	Yes	Needed to clear the registration and reservation (i.e., Target Reset does not clear the registration/reservation). E.g, initiator goes away.
PREEMPT	04h	No	
PREEMPT AND ABORT	05h	No	
REGISTER AND IGNORE EXISTING KEY	06h	Yes <sup>a</sup>	
<b>Scope</b>			
LU_SCOPE	00h	Yes	
ELEMENT_SCOPE	02h	No	
<b>Type</b>			
Write Exclusive	01h	No	
Exclusive Access	03h	Yes	
Write Exclusive - Registrants Only	05h	No	

a. An implementation shall use either the REGISTER or REGISTER AND IGNORE EXISTING KEY service action.

**Table 1: Replacement PERSISTENT RESERVE OUT functionality (continued)**

<b>Persistent Reserve Out</b>	<b>Code</b>	<b>Required</b>	<b>Notes</b>
Exclusive Access - Registrants Only	06h	No	
Write Exclusive - All Registrants	07h	No	
Exclusive Access - All Registrants	08h	No	

a. An implementation shall use either the REGISTER or REGISTER AND IGNORE EXISTING KEY service action.

### **EXTENDED COPY operation**

For some EXTENDED COPY implementations, the application client performs a locking function, to maintain data integrity on the source (and maybe the destination device) prior to starting the issuing copy operation. The persistent reservation management method may be used to perform the locking function. If used for extended copy operations, additional persistent reserve functionality may be necessary. Other methods, such as access controls, may also perform the locking function thus mitigating the need for additional persistent reserve functionality beyond what is specified in table 1.

### **Proposal**

1. Add, as an infomative annex in SPC-3, the replacement PERSISTENT RESERVE OUT functionality table and any associated text.