

TO: T10 Membership
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SUBJECT: T10/06-061r1, ADC-2 Model for Devices with No ADT Ports

06-061 Revision 0

- Initial revision

06-061 Revision 1

- Introduced the concept of automation port to make changes less wordy. This includes non-SAM-compliant ports which can pass SCSI requests and responses.
- Changed references to “ADT port” to “automation port” where appropriate.

General

The model section of ADC specifies that DT and automation devices would include an ADT port. This is an unnecessary restriction, since the automation application client can communicate with the ADC device server via any SCSI port, such as USB or even a primary port.

Changes

These changes are with respect to ADC-2 revision 3.

3.1.9 automation device primary port: A SCSI target or target/initiator port in an automation device.

3.1.x automation port: A port connecting an automation device and a data transfer device. It supports a transport which passes SCSI requests and responses (e.g., ADT or USB).

4.2.1 Automation/drive interface overview

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An automation device contains:

...

- d) ~~An ADT port (see 3.1.3); An automation port (see 3.1.x) through which the automation application client invokes commands or task management requests on passes SCSI requests to and responses from the ADC device server in the DT device.~~

...

A DT device contains:

...

Replace items d) and e) with:

- d) ~~One or more ports through which the device servers contained within the DT device pass SCSI requests and responses. At least one of these ports shall be a primary port.~~

4.2.2 Device server interaction

Following the second paragraph add these two paragraphs:

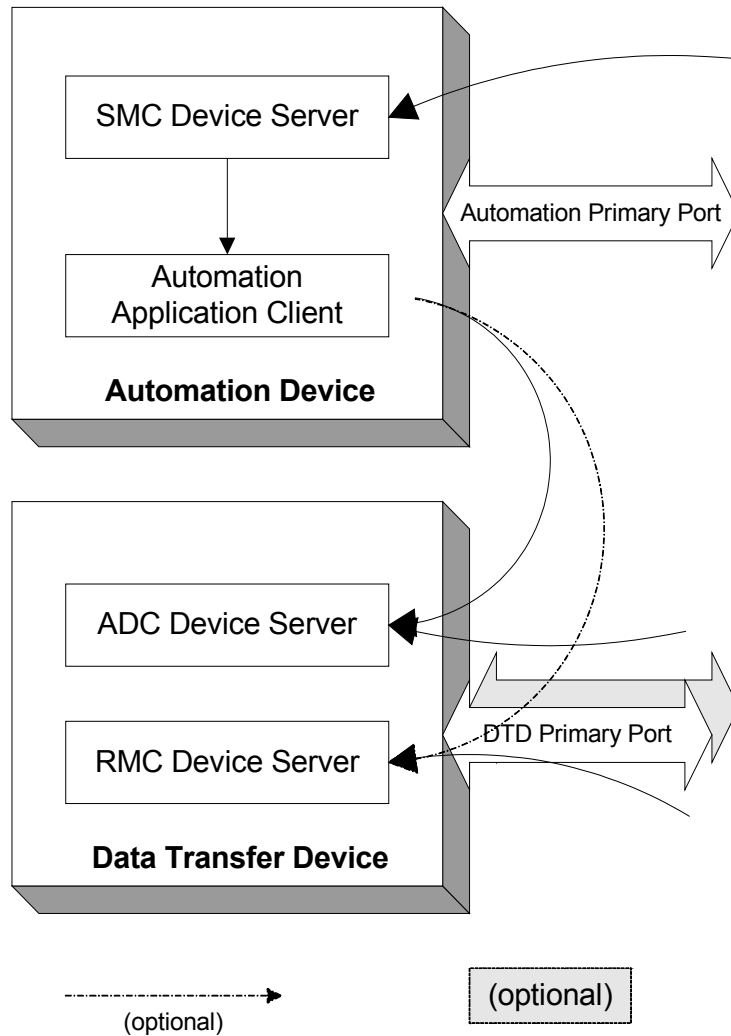
~~Instead of the automation ports shown in figures 2 and 3, the automation and DT devices may pass SCSI requests and responses via their primary ports. The ADC device server shall be accessible as a logical unit through the DT device primary port. The RMC device server should be accessible as a logical unit through the DT device primary port, and may be an asymmetric logical unit (see SAM-3).~~

Figure n shows an example of this communication, in which the automation primary port is a SCSI target/initiator port. If enabled (see 6.2.2.4.2), the RMC device server shall be accessible as a logical unit through the DT device primary port. The ADC device server shall be accessible as a logical unit through the DT device primary port. There may be no need for a local SMC device server, because the SMC device server is directly accessible via the automation device's primary port.

In Figure 2, change all occurrences of “ADT Port” to “Automation Port.”

In Figure 3, change “ADT Port” to “Automation Port.”

Add following Figure 3:



Device server model without ADT or alternate SCSI ports

Figure n

4.2.3.1 ADI bridging introduction

The DT device may support ADI bridging for the automation device. When ADI bridging is enabled via the ENABLE bit of the SMC Logical Unit descriptor (see 6.2.2.4.3), the DT device shall contain the

bridging manager and the local SMC device server (see figure 3). The DT device shall report to its DT device primary port(s) a logical unit that implements an SMC device server (i.e., the local SMC device server), and the automation device shall report a logical unit to the automation device **ADT automation** port that implements an SMC device server (i.e., the remote SMC device server). The local SMC device server may be accessible as a logical unit through the DT device **ADT automation** port, and may be an asymmetric logical unit (see SAM-3).

The local SMC device server receives a SCSI command or task management request via a DT device primary port. In processing the command or request, the local SMC device server may require the automation device to perform tasks. To do this, the local SMC device server passes requests to an application client in the DT device (i.e., the bridging manager). This communication is performed by means outside the scope of this standard. Using the **ADT automation** ports on the DT device and automation device, the bridging manager then invokes requests on the remote SMC device server that resides in the automation device.

The effect is that some or all requests addressed to the local SMC device server are passed to the remote SMC device server through the **ADT automation** port. This may be used in low-cost automation devices that do not have automation device primary ports.

6.2.2.3.1 DT Device Primary Port subpage overview

The DT Device Primary Port subpage contains descriptors that allow the DT device's primary ports to be configured, independent of the port type receiving the command (e.g., a Fibre Channel DT device primary port may be configured via the DT device's **ADT automation** port).

6.2.2.4.2 RMC logical unit descriptor format

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Third paragraph on page 71:

An ENABLE bit set to one indicates that the DT device primary port(s) associated with the RMC logical unit shall be responsive to SCSI tasks and task management requests received on that DT device primary port(s). An ENABLE bit set to zero indicates that the DT device primary port(s) associated with the RMC logical unit shall not respond to SCSI tasks and task management requests received on that DT device primary port(s) and the associated RMC logical unit number shall not be reported in any REPORT LUNS command. The ENABLE bit has no effect on the access to the RMC device server through the **ADT automation** port.

6.2.2.4.3 SMC logical unit descriptor format

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Second paragraph on page 74:

An ENABLE bit set to one indicates that the DT device primary port(s) associated with the SMC logical unit shall be responsive to SCSI tasks and task management requests received on that DT device primary port(s). Received SCSI tasks may be processed by the local SMC device server or may be passed by the bridging manager to the remote SMC device server for processing (see 4.2.3). An ENABLE bit set to zero indicates that the DT device primary port(s) associated with the SMC logical unit shall not respond to SCSI tasks and task management requests received on that DT device primary port(s) and the associated SMC logical unit number shall not be reported in any REPORT LUNS command. The ENABLE bit has no effect on the access to the SMC device server through the **ADT automation** port.

6.2.2.4.4 ADC logical unit descriptor format

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Fifth paragraph on page 75:

An ENABLE bit set to one indicates that the DT device primary port(s) associated with the ADC logical unit shall be responsive to SCSI tasks and task management requests received on that DT device primary port(s). An ENABLE bit set to zero indicates that the DT device primary port(s) associated with the ADC logical unit shall not respond to SCSI tasks and task management requests received on that DT device primary port(s) and the associated ADC logical unit number shall not be reported in any REPORT LUNS command. The ENABLE bit has no effect on the access to the ADC device server through the ~~ADT~~ automation port.