

**To:** T10 Technical Committee  
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**Date:** 26 July 2000  
**Subject:** QAS without IU in SPI-4

### **Revision History**

Revision 1 proposes letting devices lacking IU support participate in QAS without generating QAS REQUEST messages themselves.

Revision 0 proposed removing the IU/QAS restriction, allowing QAS REQUEST to occur during any message sequence.

### **Proposal**

Let devices like tapes and enclosure services devices participate in QAS but not generate QAS REQUEST messages themselves.

They would snoop for the QAS REQUEST message after a DT DATA phase, participate in QAS arbitration, and understand QAS selection. The only difference would be that they would proceed in non-packetized mode rather than enter packetized mode, and would go BUS FREE rather than generate a QAS REQUEST message when finished.

This should be compatible with existing QAS designs. It is simpler for simple devices to implement than full packetized mode.

SPC-n/SPI-4 changes would include:

- INQUIRY QAS bit means the device can participate in QAS but does not necessarily initiate QAS arbitration
- PPR "QAS\_REQ" bit means QAS participation is enabled.
- Devices with QAS enabled may send QAS\_REQUEST messages. They are not required to do so.

An initiator which chooses this option might break existing QAS target designs. The target will need to understand initiators that ask for QAS without IU and enter message phase after selection rather than DT DATA phase. We could only allow targets to implement this subset if that is a problem.

A target which chooses this option should not break existing initiator designs. Software might need to relax some rule checks about QAS\_REQ and IU\_REQ. Hardware must not complain about not entering DT DATA phase after a QAS.