The RapidIO specification was developed to allow different, in some cases competing, vendors to develop RapidIO technology that can be integrated into an efficient, robust, high-performance system. The RapidIO specification uses specific terms for the behaviors required to reach and maintain that objective:

- o "Compliant": A correct implementation of the RapidIO specification, as agreed to by members

- o "Requirement": Behavior that must be present for a device to be compliant to the RapidIO standard

- o "Shall", "Must": Occur in definitions of requirements.

- o "Shall not", "must not": Occur in definitions of requirements phrased such that conditions or behaviors never occur.

- o "Should", "should not": Occur in definitions of recommended behavior that maintains the quality of the ecosystem

- o "May" : Defines an allowable, possibly optional, behavior. Compliant devices must handle all allowable behaviors.

- o "Optional": An implementation may or may not implement optional functionality. If the optional functionality is implemented, it shall implement all requirements.

- o "Reserved": Generally applies to bits within packet formats and registers.
- o Compliant implementations shall transmit reserved bits as 0. Reserved bits shall not affect compliant implementations behavior. Reserved bits may be defined in future versions of the RapidIO specification.

- o "Implementation Specific bit(s)/value(s)": The bit(s)/values may be used in an implementation specific manner by a vendor. Other vendors must treat these values as "Reserved". System integrators shall not assume that these bits/values control the same functionality on different devices.
- o Transmitting and receiving implementation specific bits/values shall be disabled after reset.

- o "Implementation specific behavior" : Members agree that the behavior does not affect the quality of the ecosystem, and so there are no requirements for this behavior.