

Clarification Request

References: ASHRAE 135-2008, section 9.5.6.4

Background:

Clarifying a point regarding the functioning of the MSTP master state machine.

We have a situation where the sequence of messages between two MSTP master nodes (call them Device A and B) is as follows:

1. Device A sends read_property_multiple request with Invoke_ID 1 to B
2. B responds with postpone_reply
3. A sends another read_property_multiple request with Invoke_ID 2 to B
4. immediately after receiving the second request (i.e. while it still has the token), B sends the response to the first request, which is now available.
5. some time after this, B sends the response to the second request.

Question is this:

- (a) is it OK for B to respond directly to a new request (i.e. Invoke_ID 2) with a delayed response to a prior request (i.e. Invoke_ID 1), while responding from the ANSWER_DATA_REQUEST state of the Master Node Finite State Machine, or
- (b) must a delayed response be sent from the USE_TOKEN state only?

The implication of (a) would be that device A could receive a delayed response to the previous request while in the WAIT_FOR_REPLY or in the IDLE state, whereas if (b) is true it would only ever receive a delayed response while in the IDLE state only.

It is my impression that the Master Node Finite State Machine does not care about the Invoke_ID values in the messages, only about the correct message type, and that option (a) would be correct.

Response:

In the proposed interpretation (a), Device B does not have the TOKEN in ANSWER_DATA_REQUEST state. For this reason, proposed interpretation (a) is incorrect, and only proposed interpretation (b) shall be endorsed.