

LMP Behavior Negotiation and Configuration Modifications

CCAMP WG, IETF 81th, Quebec - CA

draft-ietf-ccamp-lmp-behavior-negotiation-04

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After Prague (80th) Meeting

Changes from 02 version:

- Added a new section 2: LMP Message Modifications
 - To address the multiple config object issue
 - Introduced the config object to ConfigAck and ConfigNack to allow explicit identification of non-supporting nodes
- Renamed BEHAVIOR_CONFIG to BehaviorConfig
 - Consistent with 4240 naming style;
- Introduced separate format and procedures sub-sections in section 2 and 3;
- Slightly changed the format of BehaviorConfig
 - Removed duplicate “Length” field
 - "B" bit was dropped
- Revised backward compatibility section
- Added Lou Berger as a co-author

Multiple CONFIG Objects Support

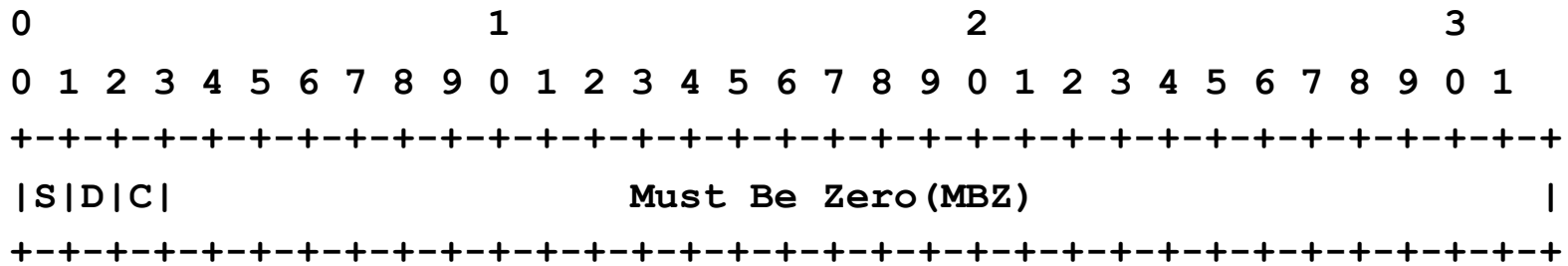
LMP Config, ConfigNack and ConfigAck messages are modified by this document to allow for the inclusion of **multiple CONFIG objects**:

➤<Config Message> ::= <Common Header> <LOCAL_CCID>
<MESSAGE_ID> <LOCAL_NODE_ID>
<CONFIG> [<CONFIG> ...]

➤<ConfigAck Message> ::= <Common Header>
<LOCAL_CCID> <LOCAL_NODE_ID>
<REMOTE_CCID> <MESSAGE_ID_ACK>
<REMOTE_NODE_ID> [<CONFIG> ...]

➤<ConfigNack Message> ::= <Common Header> <LOCAL_CCID>
<LOCAL_NODE_ID> <REMOTE_CCID>
<MESSAGE_ID_ACK> <REMOTE_NODE_ID>
<CONFIG> [<CONFIG> ...]

Format of BehaviorConfig



S: 1 bit --- [RFC4207] **D:** 1 bit --- [RFC4209] **C:** 1 bit --- [RFC5818]

Must Be Zero (MBZ): Variable length

Note:

- ✓ The remaining bits in the flags field MUST be set to zero (0).
- ✓ The number of bits present is based on the Length field of the LMP object header and MUST include enough bits to the length field

Backward Compatibility

- How will a legacy node handle a Config Message containing a BehaviorConfig:
 - a. ConfigNack -- due to unknown BehaviorConfig object type
 - b. ConfigNack -- due to multiple CONFIG objects
 - c. ConfigNack -- due to malformed CONFIG object
 - d. No response -- treat as malformed and drop without any response
- What a draft compliant node should do:
 - Cases (a), (b) and (c) allow explicit identification of a legacy neighbor → node should revert to current behavior
 - Case (d) results in reaching RFC4204 "retry limit" → node should revert to current behavior

Next Steps

- Update document based on comments
- Comments?