

Interpreting the Link Error Status Block

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Agenda



- Describe the problem with the Link Error Status Block (LESB)
- Review an enhancement request for FCoE
- Discuss a potential solution for both.

The problem with the LESB



- When Read Link Error Status Block (RLS) (see FC-LS-2 clause 4.2.10) is used, the originating Nx_Port is incapable of determining how to decode the LESB in the LS_ACC.
 - Is the responder an FC or FCoE port?

An enhancement request for FCoE



- Allow a management application to determine the protocol in use by the other Nx_Ports visible to it.
 - Registering an object with the NS has been discussed and rejected several times.

A potential solution



Table 15 – RLS LS_ACC Payload

Bits Word	31	...	24	23	...	16	15	...	08	07	...	00	
0	02h			00h			Format Type			Format valid			
1	MSB			Link Error Status Block (see FC-FS-3) (24 bytes)									
...													
6													
													LSB

- Use two bytes to indicate the format of the LESB. Refer to the next slide for detail.
- Allows the originating Nx_Port to determine how to interpret the LESB
- Allows a management application to determine the protocol in use without a new NS object and query.
 - The Nx_Port for the management application will just use RLS.

A potential solution (cont.)



- Byte 0 and byte 1 of the RLS LS_ACC shall be used as follows:
 - - If byte 0 is set to zero, no information is provided about the format of the LESB or the sending PN_Port;
 - - If byte 0 is set to one and the sending N_Port / F_Port uses an FC-FS-3 PN_Port / PF_Port, it shall set byte 1 to zero and the format of the LESB shall be as specified in FC-FS-3;
 - - If byte 0 is set to one and the sending N_Port / F_Port uses a lossless Ethernet MAC, the sending N_Port / F_Port shall set byte 1 to one and the format of the LESB shall be the FC-BB_E format as specified in FC-BB-6;
 - - An N_Port / F_Port should set byte 0 to one and the remainder of the RLS LS_ACC payload accordingly.

A potential solution (cont.)



Format valid

Function	Value
No information provided - The format of the LESB is not provided in the Format Type field.	0
Format Type field valid - The format of the LESB is provided in the Format Type field.	1
Reserved	2 - 255

Format Type

Function	Value
FC-FS-3 - The sending N_Port / F_Port uses an FC-FS-3 PN_Port / PF_Port. The format of the LESB shall be as specified in FC-FS-3;	0
FC-BB-6 - The sending N_Port / F_Port uses a lossless Ethernet MAC. The format of the LESB shall be the FC-BB_E format as specified in FC-BB-6	1
Reserved	2 - 255

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