



Negotiation for IET



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Assumptions

- Negotiation will operate identically in each direction
 - Therefore – only 1 instance will be described
 - Standard will describe Tx & Rx behavior separately for both LP
- IET capable PHY will understand IET frames/fragments
 - No need to enable Rx – only Tx
- “Bad” device inserted between LP’s is unusual error
 - Mis-configuration can cause link failure after timeout
 - Bad packets will not be propagated
- Rapid startup must be possible but not mandated
 - Fast/slow startup left to implementer (application requirements)

LLDP - advertisement

- Each link partner sends an IET TLV:
 - One bit that indicates IET frames have been received
i.e. >0 IET frames received since last TLV
- System shall not transmit using IET frames...
 - ... unless it is receiving IET TLV
- Simple 2-way advertisement
 - No state exchange needed
- IET frames received bit allows timeout for fault detection

Fault detection

- In scenario with invalid configuration
(illegal intermediate device)
- If all IET frames appear as invalid Ethernet frames
LLDP keepalives will fail
IET TLV will timeout – IET will cease
- In scenario where data is passed but SFD/preamble is overwritten (i.e. re-generated)
LP will not receive IET frames, IET received will not be returned
System may detect fault and act accordingly
- Fault detection will rely on timing of monitor/keepalive
Rare failure mechanism, not expected in most situations

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