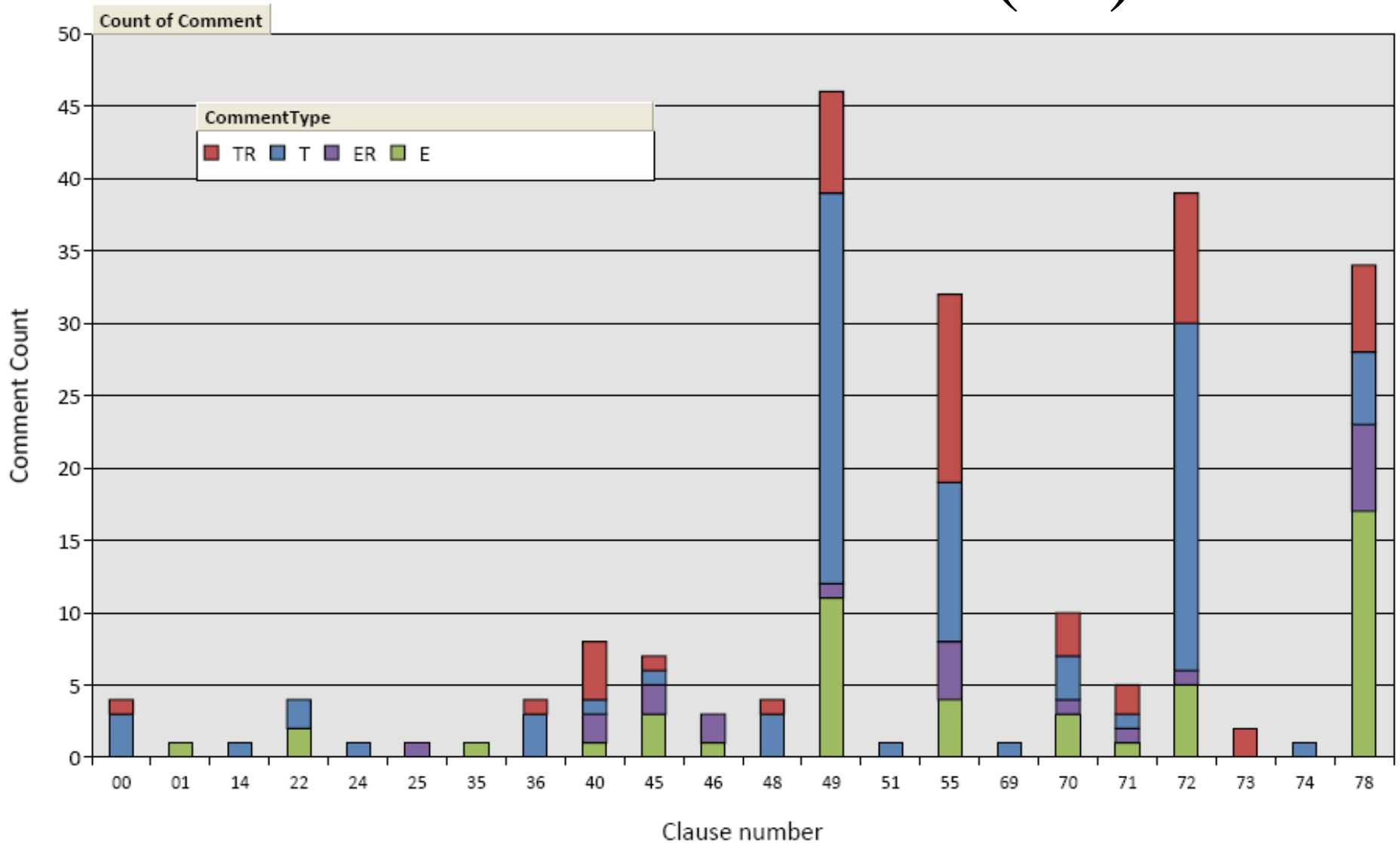# Next steps for EEE Draft

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Energy Efficient Ethernet
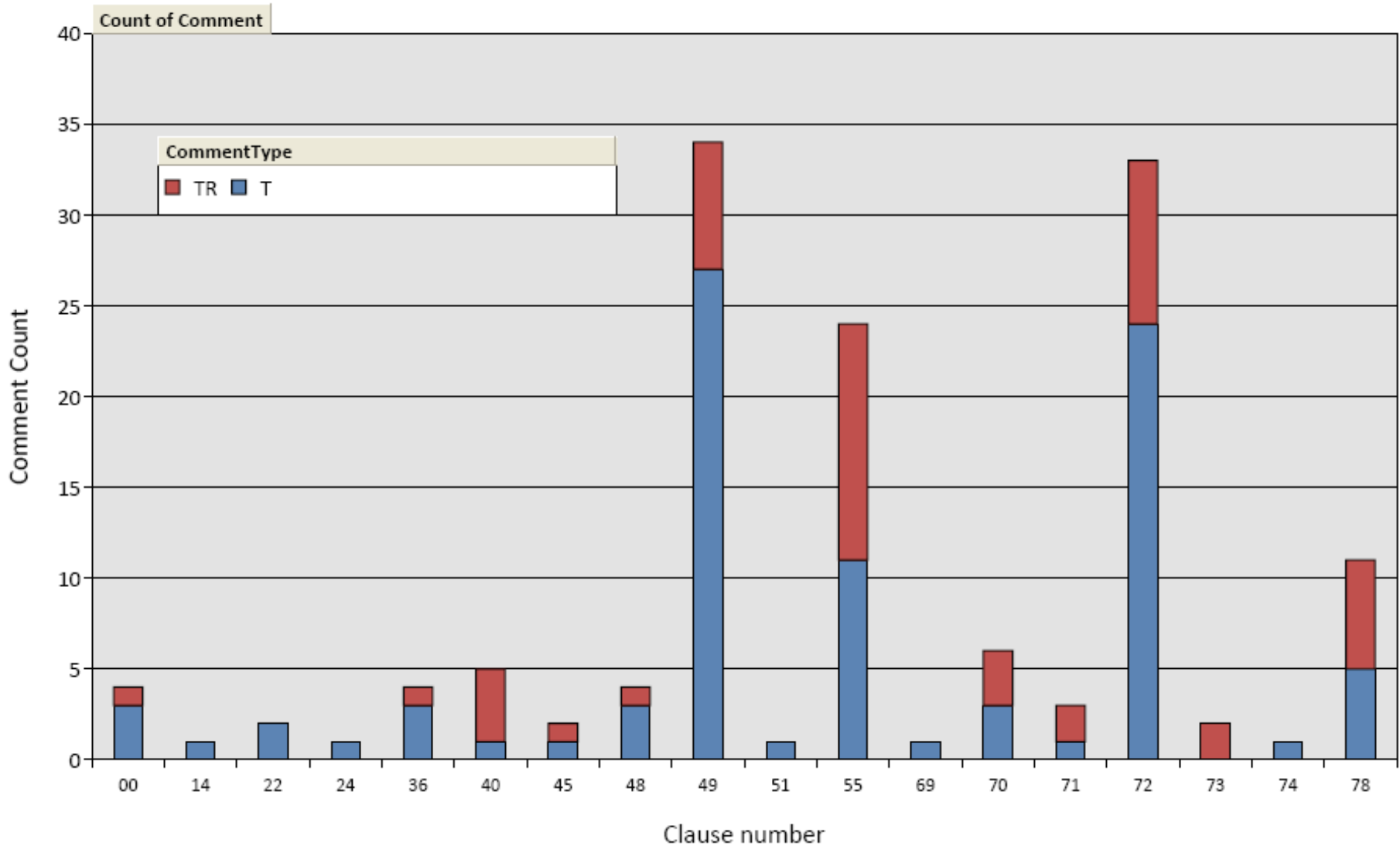
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Status

- D1.2.1 was published in February
  - Backplane saw significant changes
  - Discussion on LLDP and shrinkage led to the formation of two Ad Hoc – reports available
- We received a large number of comments
  - ~210 total, 139 technical
  - Among BASE-Ts, 55 has the largest number
  - Large percentage on backplane and Clause 78
  - See next slide for stats

Comment statistics (all)

Comment statistics (Tech)

Clauses 14, 24, 25, 40

- Clause 25 subclause 25.3 page 57 line 9, does the editor's note still belong?

- pg 61 c25 lines 39-45 - has the "further analysis been done" if not then it's an open item

Clause 55

- Input from Gavin
- Test modes need more work
- PICS needs to be checked for completeness
- A synchronization mechanism for non-loop timed PHYs has not been proposed.

Backplane

- Input from David Koenen
- Clause 72, Rx LPI State diagram not correlated with Clause 49
- Clause 72/73 Need method to sync start of FEC on Wake.
- Proposed auto-negotiated quiet/refresh times need to be put into BP PHYs clauses or Clause 49.

Clause 78

- Shrinkage of wake and alert times needs to be worked out and put into the draft. This is being addressed by an ad hoc being run by David Law

- The LLDP section needs to be revamped - being done through an ad hoc being run by Wael Diab

TBDs

Clause	Page	Line	Details	Comment	Suggested
45	116	25	3.20 EEE capability register	cross ref	
45	116	26	3.21 EEE reduced energy capability register	cross ref	
45	120	7	If the device supports EEE operation for 1000BASE-KX as defined in TBD	cross ref	
55	166	23	lp_idle /LI/ 0x06 0x06 TBD	Informative, specified in 48	
78	239	7	802.3, subtype = TBD	TLV related	

Values needed for 1000BASE-KX

Clause	Page	Table	Details	Comment	Suggested
70	203	70-4	Diff p2p output voltage output voltage with TX enabled (V_{TW})	TX	
		70-4	Transmitter deactivation time from active (T_{TD}) to EEE	TX	
		70-4	Transmitter activation time from EEE quiet mode (T_{TA})	TX	
70	204	70-6	Diff input p2p amplitude (min.) to assert Signal_Detect (V_{SA})	RX	
		70-6	Diff p2p output amplitude to de-assert signal detect (V_{SD})	RX	
		70-6	Transmitter deactivation time from active to quiet (TSD)	RX	
			Transmitter activation time from EEE quiet to active (T_{SA})	RX	

- Put values into definitions in 70.6.5

Values needed for 10GBASE-KX4

Clause	Page	Table	Details	Comment	Suggested
71	211	71-4	Diff p2p voltage (min) with TX enabled (V_{TV})	TX	
			Transmitter deactivation time from active (T_TD)	TX	
			Tx activation time from EEE quiet mode (T_{TA})	TX	
	212	71-6	Diff input p2p amplitude to assert Signal_Detect (V_{SA})	RX	
			Diff input p2p amplitude to deassert Signal Detect (V_{SD})	RX	
			Signal Detect deactivation time from active to quiet (T_SD)	RX	
			Signal Detect activation time from EEE quiet mode (T_{SA})	RX	

- Put values into definitions in 71.6.6

Values needed for 10GBASE-KR

Clause	Page	Table	Details	Comment	Suggested
72	226	72-6	Diff p2p voltage (min) with TX enabled (V_{Tw})	TX	
			Transmitter deactivation time from active (T_{TD})	TX	
			Tx activation time from EEE quiet mode (T_{TA})	TX	
72	227	72-9	Diff input p2p amplitude to assert Sense Signal (V_{SA})	RX	
			Diff input p2p amplitude to deassert Sense Signal (V_{SD})	RX	
			Signal Detect deactivation time from active to quiet (T_{SD})	RX	
			Signal Detect activation time from EEE quiet mode (T_{SA})	RX	

- Put values into definitions (check if this is 70.6.5 or 72.6.5)
- Check if subclause references are correct for the RX items

General

- Have tests to verify LPI signaling been defined?

- Management and register definitions

- PICS