

802.3as Frame Expansion Task Force
802.1/802.3as joint meeting

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Outline

- **802.3as objectives**
- **802.3as maximum frame size polls**
- **Minimum frames**
- **Maximum frame attribute**

Objectives

- 1) **Preserve the IEEE 802.3 MAC data service interface**
- 2) **Preserve the basic frame format**
- 3) **Maintain the maximum data field length (1500 octets)**
- 4) **Increase the maximum frame size exclusively for optional prefix and suffix fields in envelope frames**
- 5) **Redefine the Tagged frame format as an envelope frame format**
- 6) **At a minimum, support:**
 - a) **IEEE 802.1Q Virtual Bridged LANs**
 - b) **IEEE 802.1ad Provider Bridges**
 - c) **IEEE 802.1AE MACsec**
 - d) **ITU-T SG15 Ethernet transport encapsulations**
- 7) **Investigate and define the largest maximum frame size with minimal impact to existing networks and standards**

Straw polls: frame size

■ New max frame size preference:

	1,875 ¹	2,000 ²	2,048 ³	Other value	Don't care	Abstain	Total in room
9/04 FESG	5	3	1	-	-	-	9
11/04 FESG	4	6	4	-	-	-	28
11/04 .3 WG	0	13	8	2	3	17	~70

¹1,875 is the maximum for 10 Mb/s repeaters w/ 3-bit elasticity buffers
Spec requires 2.4288 bit elasticity buffers; assumes implementations use an integral number (3) and not 2.5 bits

²2,000 is 2KB minus some arbitrary space for an internal switch header

³2,048 is the maximum size from the 802.1 work request

802.3as straw poll: #1

- **Minimum frame size discussion**
 - 1) Require all envelope frames \geq (64 octets plus prefix/suffix fields) = 2
 - 2) Allow 802.1Q Tagged frames to be 64 octets, require all other envelope frames to be as in #1 = 10
 - 3) Allow all prefix-only envelope frames to be 64 octets, all other as in #1 = 3
 - 4) No minimum data field/pad enforced for any envelope frame = 0

- **802.3as vote this morning**
- **In room = 15**

802.3as straw poll: #2

- **MAC frame size attribute discussion (Chicago-rules)**
 - 1) No attribute = 3
 - 2) Enumeration (1518, 1522, 802.3as) = 6
 - 3) Bit string = 0

- **MAC frame size attribute discussion (1 per voter)**
 - 1) No attribute = 3
 - 2) Enumeration (1518, 1522, 802.3as) = 5
 - 3) Bit string = 0

- **802.3as vote this morning**
- **In room = 15**