802.17 Bridging Compliance Roadmap

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Objective

- Summarize functional delta between Basic Bridging compliance and Enhanced Bridging compliance proposals

- Summarize technical 802.17 MAC impact resulting from Basic Bridging compliance and Enhanced Bridging compliance proposals

- Provide list of options BAH should consider when specifying/recommending Bridging Compliance proposals to 802.17 WG

Basic/Enhanced (802.1D/Q) Bridge Functionality

	Basic Transparent Bridging	Enhanced Transparent Bridging
802.1D/Q compliance	√	√
Local ring traffic spatial reuse	√	√
Transparent bridging traffic spatial reuse	×	√
Other traffic spatial reuse (e.g., multicast handling)	×	√

Basic/Enhanced (802.1D/Q) Bridge Impact on MAC

Basic bridging proposal minimal requirements	Enhanced bridging proposal minimal requirements

1. Flooding indication support in frame structure
 	
2. MAC supports flooding technique(s)
	1. Supports basic bridging minimal requirements
	2. Spatial Reuse Control Sublayer (SRCS) functionality which include SRCS mapping table
	   – Supporting (distributed) bridging functionality within MAC
	   – SRCS interactions with MAC clients
	3. Need to address Topology Control Notification (TCN) message handling
	   – Introduction of new RPR TCN Control message, or
	   – MAC needs to be aware of MAC client BPDUs
	4. Station identifiers in frame format
	   – RPR required to support station identifier distribution and uniqueness protocol
	5. MAC stripping rules include station identifier recognition

Bridging Compliance Road Map for 802.17 Specification

1. ~~Only Basic Bridging Compliance proposal for 802.17 specification~~

2. ~~Only Enhanced Bridging Compliance proposal for 802.17 specification~~

3. Basic Bridging Compliance proposal for 802.17 specification (version 1 – 802.17), and Enhanced Bridging Compliance proposal for 802.17 specification (version 2 – 802.17B)

4. Basic Bridging Compliance proposal for *normative* section of 802.17 specification (version 1 – 802.17) and Enhanced Bridging Compliance proposal for *informative* section of 802.17 specification (version 1 – 802.17)

5. Both Basic and Enhanced Bridging Compliance proposals for 802.17 specification (version 1 – 802.17). Both bridging modes coexist. The Basic Bridge is *normative*, and the Enhanced Bridge is *optional normative*.

BAH Selection Process

- Basic Bridging is normative in 802.17 specification

- BAH "beauty contest" vote on following:
  a) Enhanced Bridging described in subsequent specification (e.g., 802.17B)
  b) Enhanced Bridging described in current version of specification (e.g., 802.17)

- If b) chosen, then BAH "beauty contest" vote on following:
  a) Enhanced Bridging described in informative section of 802.17 specification
  b) Enhanced Bridging described in optional normative section of 802.17 specification

Voting Results

	Votes
Enhanced Bridging specified in subsequent document (e.g., 802.17B)	4
Enhanced Bridging specified in current document (e.g., 802.17)	6

	Votes
Enhanced Bridging described in informative section of specification	2
Enhanced Bridging described in optional normative section of specification	8

Recommendation

- Basic bridging is normative in 802.17 specification

- Enhanced bridging is optional normative in 802.17 specification