Harmonizing MPCP Frame Formats

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What is Meant by "Harmonizing"

- Align fields to 16-bit boundaries
- Try to be consistent with placement of common fields across MPCPDUs

Why Do This?

- Efficient processing of Gates and Reports is essential for EPON systems
 - It allows for more efficient 16-bit implementations and would not impact 8-bit implementations
- While "we" are going through this exercise, "Fix" all of the MPCPDUs

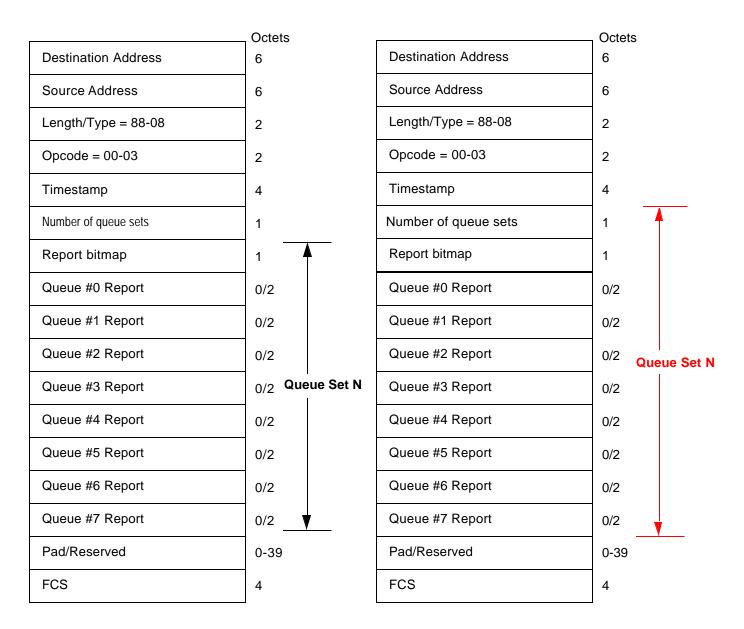
Ramifications to Draft

 Changes are minimal to frame formats and minor impact on draft

GATE MPCPDU

	Octets		Octets
Destination Address	6	Destination Address	6
Source Address	6	Source Address	6
Length/Type = 88-08	2	Length/Type = 88-08	2
Opcode = 00-02	2	Opcode = 00-02	2
Timestamp	4	Timestamp	4
Number of grants/Flags	1	Number of grants/Flags	2
Grant #1 Start time	0/4	Grant #1 Start time	0/4
Grant #1 Length	0/2	Grant #1 Length	0/2
Grant #2 Start time	0/4	Grant #2 Start time	0/4
Grant #2 Length	0/2	Grant #2 Length	0/2
Grant #3 Start time	0/4	Grant #3 Start time	0/4
Grant #3 Length	0/2	Grant #3 Length	0/2
Grant #4 Start time	0/4	Grant #4 Start time	0/4
Grant #4 Length	0/2	Grant #4 Length	0/2
Sync Time	0/2	Sync Time	0/2
Pad/Reserved	13-39	Pad/Reserved	12-38
FCS	4	FCS	4

REPORT MPCPDU



REGISTER_REQ MPCPDU

	Octets
Destination Address	6
Source Address	6
Length/Type = 88-08	2
Opcode = 00-04	2
Timestamp	4
Flags	1
Pending grants	1
Pad/Reserved	38
FCS	4

	Octets
Destination Address	6
Source Address	6
Length/Type = 88-08	2
Opcode = 00-04	2
Timestamp	4
Flags	2
Pending grants	2
Pad/Reserved	36
FCS	4
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REGISTER MPCPDU

	₁ Octets
Destination Address	6
Source Address	6
Length/Type = 88-08	2
Opcode = 00-05	2
Timestamp	4
Assigned port	2
Flags	1
Sync Time	2
Echoed pending grants	1
Pad/Reserved	34
FCS	4

Destination Address	Octets 6
Source Address	6
Length/Type = 88-08	2
Opcode = 00-05	2
Timestamp	4
Flags	2
Assigned port	2
Sync Time	2
Echoed pending grants	2
Pad/Reserved	32
FCS	4

REGISTER_ACK MPCPDU

Destination Address	
Source Address	6
Length/Type = 88-08	
Opcode = 00-06	2
Timestamp	4
Flags	1
Echoed assigned port	2
Sync Time	2
Pad/Reserved	35
FCS	4

Destination Address	6
Source Address	6
Length/Type = 88-08	2
Opcode = 00-06	2
Timestamp	4
Flags	2
Echoed assigned port	2
Sync Time	2
Pad/Reserved	34
FCS	4