draft-chan-pcn-encoding-comparison-01.txt

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Purpose of Encoding Comparison

• Indicate the different encoding approaches
• Compare the different approaches
• Provide set of choices, each with clear reason for its selection
• Help select an encoding
Method of Comparison

• Base on the encoding transport method
• Consider different encoding for each transport method
Encoding Transport

• The use of DiffServ to separate PCN and non-PCN traffic is a fact of PCN that will not be changed in different phases of the Charter. Hence the use of DSCP as part of encoding is a given.

• Should we consider Encoding Transports that does not involve the use of DiffServ? Should we remove section 3.2?

• Motion to remove section 3.4 (Out-of-Band Channel as Encoding Transport).
Encoding States

- PCN Traffic and Non-PCN Traffic
- Not Pre-Congested Indication
- Stop/Start Admission Indication
- Start/Stop Termination Indication
- Affected Marking Indication
- Nonce Indication – required?
Criteria

• How well an encoding supports the required PCN Encoding States
• How well an encoding supports PCN traffic’s friendliness to ECN traffic
• How well an encoding supports ECN traffic’s friendliness to PCN traffic
• How well an encoding allows PCN to work with ECMP
Open Issues (1)

• Is PCN Traffic and Non-PCN Traffic indication an Encoding State?
  – The algorithm does not need to indicate if the traffic is PCN traffic or Non-PCN traffic
  – Remove this as encoding state if PCN traffic can always be separated

• Use of PCN by multiple DiffServ PHBs.
Open Issues (2)

• Interaction between PCN and ECMP and its impact on Encoding Choices
  – How does ECMP algorithms use DSCPs?
  – Can PCN use different DSCPs to help its usage with ECMP?

• Will changes in PCN’s operating environment require choosing different encoding?

• Change the terminology + abbreviation to PCN focus instead of ECN focused.
Next Steps

• Re-organize the draft based on the simplification steps discussed today.
• Expand and deepen the explanations for the remaining encoding choices.
• Consider additional encoding choices for the remaining transport methods.
• Add discussion of how each encoding choice support the known algorithms.