Protocol Update

Forwarding and Control Element Separation
(IETF87 Berlin, .de, July 2013)

Jamal Hadi Salim <hadi@mojatatu.com>

IETF ForCES WG

Table append

- Send a table row SET with any index and path flag to indicate *append*
  - Response tells you what table row was used
- Good fit for
  - LFBs we have no control over table indices
  - Where we try to save rtt for setting table row (eg instantiating an LFB via FEObject)
- tcpdump patch submitted

Table Range Query

- Table range TLV for GET/DEL
    - Pathdata flag to indicate it is a table range
    - Contents to include start/end of range
- Implementation for Del not positive
    - Complication is informing CE which rows have been deleted
    - Recommend foregoing it for sake of deadline
- GET tested and works well
    - tcpdump patches submitted

Table append + range

- tcpdump illustration

Additional Return Codes

- RFC 5810 error codes a good starting point
  - codes too generic e.g E_NOT_SUPPORTED
- Implementation experience has shown we could use more
  - Would allow easier debugging a response to an interoping implementation to say E_INVALID_OP instead of E_NOT_SUPPORTED which means 10 other things

Additional Return Codes

- Implementation completion to follow after meeting

    – As suggested to not standardize ascii stttrings

- Have come across one scenario where we need more than just ascii strings

    – Try to do a SET via a backup CE

    – Backup CE or FE (depending on implementation) responds with READ_ONLY

        - ASCII string could be "You are not the master"

        - It would be useful to provide 32-bit ID of master CE

Bitmap encoding

- Discussion of whether the protocol draft needs to mention it at all
  - Argue that a bitmap is a new data type
    - Protocol agnostic to any datatypes