To: Adrian Farrel and Deborah Brungard, IETF CCAMP WG Co-Chairs
Copy: Ross Callon and Bill Fenner, IETF Routing Area Directors
From: Jim Jones, OIF TC Chair
Subject: RSVP Signaling for MEF services

Dear Adrian and Deborah,

In a liaison we sent you on May 19, 2006, we asked for your advice on the label formats to represent a list or range of VLAN identifiers as used in MEF.10 and MEF.11 bundling when a large number of VLAN identifiers is used. We received your response on June 22, 2006 recommending that we consider signaling a MEF bundle identifier and a few other options including the use of GMPLS link bundling and concatenated labels.

We have investigated the use of the MEF bundle identifier as a VLAN identifier but have chosen not to pursue this option further given the additional burden on the management plane.

We have not yet selected a mechanism to signal the VLAN identifiers when MEF bundling is used. There could be multiple VLANs included in the same MEF bundle, up to 4096.

In our liaison, we also asked whether we could reduce the redundancy of labels in the bi-directional case when the same labels are used in both directions. We would like to provide additional background as to why we believe this redundancy can be problematic:

- For the signaling of MEF bundles, we have determined, based on the Carrier Working Group's feedback, that the use of different VLANs in each direction is neither required nor desirable.
- In the OIF UNI case, we currently require four labels in the PATH message at the source UNI for a bi-directional connection with VLAN preservation:
    - RSVP Label Set (with one label) to be used in Downstream direction
    - Upstream Label
    - Generalized UNI – Egress Label Sub-Object (Upstream)
    - Generalized UNI – Egress Label Sub-Object (Downstream)
- For the connections that include multiple VLAN identifiers, our support will be limited to:
    - Bi-directional setup with VLAN preservation with the same VLAN in both directions.
- Although we do not intend to support Ethernet E-NNIs (with Ethernet PHYs) at this point, we do not want to preclude them in the future. We are worried about the scalability of this large label format if the label has to be included in the explicit route object for each E-NNI hop. In that case, an end-to-end significant

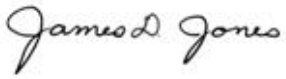
label would reduce the amount of information to carry by a large factor relative to the number of hops involved.

For the MEF bundling, we would like to signal a potentially large number of VLAN identifiers (less than 4096) that are used end-to-end in both directions. In this case, having a label type that is end-to-end significant and implies bi-directionality would allow us to reduce the above number of labels from 4 to 1. That could make a significant difference in the case where multiple VLANs are part of the same connection.

Please advise us as to how we can represent bi-directionality and label end-to-end significance without duplicating the labels.

In a more recent liaison thread regarding draft-ietf-ccamp-ethernet-traffic-parameters-00.txt, we asked for clarification regarding the difference between the two formats for switching granularity. Your reply on October 15, 2006 recommends we do not use this field to distinguish the label type but rather using the switching type of the Generalized Label Request. Our initial intent was to use the switching granularity to distinguish between EPL and EVPL services where EPL services would use the port switching granularity and EVPL would use the frame switching granularity. We intend to use a logical port identifier as the label for EPL and rely on the switching granularity value to distinguish this label type from the label type that will be used for EVPL. Since we plan to use L2SC switching type in Generalized Label Request as you suggested in a liaison to us on June 22, 2006, it appears that the label format that would be used for EVPL services would be the same as used for EPL services as there would no means to determine the label context from the Generalized Label Request object. What should we infer from the value of the switching granularity field in the Sender Tspec? The purpose of this field is not clear and we would appreciate guidance as to how it should be used.

Best regards,



Jim Jones
OIF Technical Committee Chair