

November 28, 2007

Mr. Adrian Farrel, IETF CCAMP Co-Chair, adrian.farrel@aria-networks.com
Ms. Deborah Brungard, IETF CCAMP Co-Chair, dbrungard@att.com
Cc: Mr. Ross Callon, IETF Routing Area Director, rallon@juniper.net
Mr. David Ward, IETF Routing Area Director, dward@cisco.com

From: Mr. Lyndon Ong, OIF TC Chair, lyong@ciena.com

Subject: **Liaison to IETF CCAMP WG on VCAT/LCAS Requirements**

Dear Adrian and Deborah,

We have been monitoring with great interest the work on VCAT/LCAS support in the IETF CCAMP WG, as we have done prototyping work on control of VCAT/LCAS for interoperability events in 2005 and 2007. As a result of our internal discussion and prototyping work, we have identified a number of requirements on VCAT/LCAS support that we believe are important and may be helpful input to your work.

In general, we agree with the requirements already identified in `draft-ietf-ccamp-gmpls-vcat-lcas-03.txt`. The following have been identified as important functionality for control plane support for VCAT/LCAS that is not currently identified in the CCAMP draft:

- Ability to identify link endpoint capabilities associated with VCAT such as support of LCAS functionality
 - Possible additional requirement on ASON routing support to be taken into account in CCAMP work on ASON routing extensions rather than the VCAT/LCAS draft itself
 - This might be generalizable to advertising inverse multiplexing capabilities in addition to VCAT/LCAS
- Clean separation of VCG (VCAT Group) control from the control of VCG members
 - Supports the ability to create and modify the VCG independent of its members
 - Supports potentially different sequences of creation, e.g., creation of members first followed by VCG creation or creation of VCG first followed by its members
 - A single separate signaling session associated with the VCG is an approach that has been prototyped successfully in OIF interop events and may be a possible approach.
 - We believe the current approach in the CCAMP draft has limitations in this respect due to the incorporation of multiple VCGs within a single call, as this does not cleanly separate the VCG state and the state of its component members. We suggest that CCAMP consider using a single call per VCG instead, based on our prototyping experiences.
 - Separation of VCG and member sessions will allow unambiguous semantics for VCG characteristics vs. member characteristics such as support of recovery modes

- Ability to identify VCG members within VCG-related signaling
 - Note that it may be common in ASON environments for a VCG connection to span multiple domains and RSVP sessions in series, in which case session-specific objects such as the LSP ID and Tunnel ID are not guaranteed to have unique values end-to-end
 - Manipulation of VCG characteristics requires the ability to clearly and unambiguously identify the VCG members at each end of the VCG
- Ability to maintain VCG state across control plane failures
 - It is important to be able to maintain the VCG in the event of temporary loss of control plane connectivity or control plane state
 - We believe that graceful restart-like capabilities in RSVP need to be supported to maintain VCG state across control plane failure.

We hope that this will be useful input to your efforts and look forward to further communication on VCAT/LCAS control with IETF CCAMP WG.

Thank you.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Lyndon Ong', written in a cursive style.

Lyndon Ong
OIF Technical Committee Chair