

**Segment Protection Phone Discussion Minutes**  
**April 15, 2009**  
Bob Sultan

Attendees:

Bob Sultan (Huawei)  
Vinod Kumar (Tejas)  
Ken Young (Gridpoint)  
Corona Wei (Wei YueHua; ZTE)  
Steve Haddock  
Ao Ting (Irene) (ZTE)  
Ben Mack-Crane (Huawei)

**Agenda:**

- Discussion of agenda;
- Comments on meeting minutes from last week;
- Completion of Vinod's presentation on Coordination between Segment Protection and End-to-end Protection.
- Vinod Kumar presentation on how 1:1 Segment Protection mechanisms can be extended to provide M:1 Segment Protection;
- Review of revised PAR slides from last week.

There were no requests to add items to the agenda.

There were no corrections to the meeting minutes from the April 8 meeting.

**Vinod Kumar - Coordination between Segment Protection and End-to-end protection (continued from last week):**

[http://tech.groups.yahoo.com/group/segprot/files/Coordination between SegProt and e2e Prot v2.zip](http://tech.groups.yahoo.com/group/segprot/files/Coordination%20between%20SegProt%20and%20e2e%20Prot%20v2.zip)

Slide 7: There were a number of questions about the statement that one "Could use different MST-ID" to differentiate a TESI participating in Segment Protection from a TESI not participating in Segment Protection. It was agreed that this would be examined further outside the meeting. Ken Young also pointed-out that it would be a 'Shared Forwarding Path' rather than a 'TESI' that is distinguished.

Slide 8: There were questions about the statement that relying on a longer hold-off timer for end-to-end protection in the presence of segment protection is a 'reliability' issue. There was agreement that choosing a value that is too small may cause a problem (for example, both end-to-end and segment protection are invoked), but there was debate as to whether this would be considered a 'reliability' problem.

Slide 9: There were questions about the benefits derived from the feedback mechanism described. Vinod described that the benefit of the feedback method comes in the case where the Segment Edge Bridge determines that Segment Protection will not resolve the fault. The feedback allows end-to-end switching to occur in this case before the hold-off timer expires. There was some discussion about the increased awareness of endpoints by SEBs required to deploy this scheme. A concern was raised about the additional complexity implied by the need to handle errors in the feedback protocol (e.g., lost feedback messages).

There was agreement that this issue does not affect the PAR, but is a technical issue to be resolved during development of the project.

### **Vinod Kumar – Extension of 1:1 Segment Protection mechanisms to support M:1 Segment Protection;**

[http://tech.groups.yahoo.com/group/segprot/files/ay-M-1\\_Segment\\_Protection\\_statemachine.zip](http://tech.groups.yahoo.com/group/segprot/files/ay-M-1_Segment_Protection_statemachine.zip)

Vinod described methods for (1) extending the use of 802.1Qay protection state machines for (1:1) Segment Protection and (2) extending the use of the 1:1 Segment Protection state machines for M:1 Protection. One method involves the introduction of a distinct Segment Role Transition state machine. The other solution ‘nests’ instances of the 1:1 Segment Protection state machine.

Steve Haddock commented that the ‘nesting’ solution is desirable as it preserves the existing state machine. Ken Young commented that such ‘nested’ state machines can lead to implementation complexity. He indicated that he would oppose such ‘nested’ solutions. He also expressed the opinion that Vinod has demonstrated that specification of M:1 Segment Protection is reasonable. Steve suggested that the PAR could state the requirement using the word ‘may’ in order to allow M:1 protection to be excluded if a technical solution cannot be agreed upon during development of the standard. It was agreed that Bob will reword the proposed draft PAR accordingly.

### **Next Week:**

We will have another phone meeting at the same time next Wednesday April 22 at 9AM New York time (6:30PM India, 9PM China, etc.). On the agenda will be:

- We are hoping to have a presentation from NSN on their proposal to expand the scope of Segment Protection to include non-TE traffic (this is pending confirmation with Zehavit Alon and Nurit Sprecher).
- Discussion of material to be presented at the May meeting in support of the PAR.

### **Minutes:**

Please send any comments on these minutes to [bsultan@huawei.com](mailto:bsultan@huawei.com) or to [segprot@yahoogroups.com](mailto:segprot@yahoogroups.com)