

GMPLS Routing and Signaling Framework for Flexible Ethernet (FlexE)

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What is Flexible Ethernet (FlexE)

- FlexE refers to a generic mechanism defined in OIF-FLEXE-01.0 implementation agreement for supporting a variety of Ethernet MAC rates e.g.:
 - 200G MAC through bonding of 100GBASE-R PHYs
 - sub-rate of 50G MAC over a 100GBASE-R PHY
- The FlexE group refers to a group of from 1 to 254 bonded 100G Ethernet PHYs
- FlexE utilizes the FlexE group to provide the aforementioned flexible MAC rates

What is the problem we are trying to solve

- Signaling and routing issues related to FlexE, including necessary extensions to GMPLS protocols such as RSVP-TE and OSPF-TE.

What happened since Seoul

- We met in Seoul and identified following items in version 0 that needs further work by IETF98 in Chicago
 - Revise the abstract
 - Review the use cases and update the requirements terminology
 - Provide outline of framework and architecture sections
 - Analyze the existing signaling and routing solution, start working on a consensus solution
- We had a conference call meeting and also many detail email discussions and made good progress
 - Revised the abstract
 - Agreed on use cases and requirements
 - Added information in the framework section
 - Published the revised doc as version 2
 - Started initial analysis of existing signaling and routing solutions

What are the outstanding issues

- We are following closely what is happening in ITU-T, OIF, and IEEE that are involved defining the FlexE data plane.
- We have additional use cases that could be included in scope depending on further work in the above standard bodies

What are the next steps

- Start working on signaling and routing solution
- Complete the framework and architecture sections, produce an proposal for the solution
- Discuss what is needed in terms of a yang model
- Invite comments on the draft as such and especially the open issues, and ideas for the sections we'll start working on now