

TEAS Working Group
Internet Draft

A.Wang
China Telecom
Boris Khasanov
Huawei Technologies
Sudhir Cheruathur
Juniper Networks
Chun Zhu
ZTE Company

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**PCEP Extension for Native IP Network
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Abstract

This document defines the PCEP extension for PCE application in Native IP network. The scenario and architecture of PCE in native IP is described in [I-D.[draft-wang-teas-pce-native-ip](#)]. This draft describes the key information that is transferred between PCE and PCC to accomplish the end2end traffic assurance in Native IP network under central control mode.

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[1. Introduction](#)

Traditionally, MPLS-TE traffic assurance requires the corresponding network devices support MPLS or the complex RSVP/LDP/Segment Routing

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The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#) [RFC2119].

Three new objects are defined in this draft; they are Peer Address List Object (PAL Object), Peer Prefix Association Object (PPA Object) and Explicit Peer Route object (EPR Object).

Peer Address List object is used to tell the network device which peer it should be peered with dynamically, Peer Prefix Association is used to tell which prefixes should be advertised via the corresponding peer and Explicit Peer Route object is used to point out which route should be taken to arrive to the peer.

Each extension object takes the similar format, that is to say, it began with the common object header defined in [RFC5440] as the following:

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AT(8 bits): Address Type. To indicate the address type of Peer.
Equal to 4, if the following IP address of peer is belong to IPv4;
Equal to 6 if the following IP address of peer is belong to IPv6.

Prefixes Num(8 bits): Number of prefixes that advertised by the corresponding Peer. It should be equal to num of the following IP prefix TLV.

4.3. EXPLICIT PEER ROUTE Object

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EXPLICIT PEER ROUTE Object Object-Type is **
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[illegible]

Peer-Id(8 bits): To indicate the peer that the following next hop address point to. This value is assigned in the Peer Address List object and is referred in this object.

AT(8 bits): Address Type. To indicate the address type of explicit peer route. Equal to 4, if the following next hop address to the peer is belong to IPv4; Equal to 6 if the following next hop address to the peer is belong to IPv6.

Resv(16 bits): Reserved for future use.

Next Hop Address to the Peer TLV: Variable Length, use the TLV format to indicate the next hop address to the corresponding peer that indicated by the Peer-Id.

5. Management Consideration.

6. Security Considerations

TBD

7. IANA Considerations

TBD

8. Conclusions

TBD

9. References

9.1. Normative References

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10. Acknowledgments

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Authors' Addresses

Aijun Wang
China Telecom
Beiqijia Town, Changping District
Beijing, China

Email: wangaj.bri@chinatelecom.cn

Boris Khasanov
Huawei Technologies
Moskovskiy Prospekt 97A
St.Petersburg 196084
Russia

EMail: khasanov.boris@huawei.com

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Sudhir Cheruathur
Juniper Networks
1133 Innovation Way
Sunnyvale, California 94089 USA

Email: scheruathur@juniper.net

Chun Zhu
ZTE Corporation
50 Software Avenue, Yuhua District
Nanjing, Jiangsu 210012
China
Email: zhu.chun1@zte.com.cn