

**Path Computation Element (PCE) Communication Protocol (PCEP) TCP port
number changes
draft-manral-pce-tcp-port-02**

Abstract

Path Computation Element (PCE) Communication Protocol (PCEP) defined in [RFC 5440] states that "All PCEP messages MUST be sent using the registered TCP port for the source and destination TCP port." This has however lead to a lot of restrictions for the implementation. With these considerations in mind this document updates the TCP behavior.

Requirements Language

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].

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Table of Contents

1.	Introduction	3
2.	TCP Port changes	3
3.	IANA Considerations	3
4.	Security Considerations	3
5.	Acknowledgements	3
	Author's Address	3

1. Introduction

PCEP defined in [[RFC 5440](#)] uses TCP as the transport protocol to transfer all PCEP messages. The PCEP specification states that:

"All PCEP messages MUST be sent using the registered TCP port for the source and destination TCP port."

However as PCEP can be used as communication between PCEP clients and servers as well as between servers. This has caused issues in implementations on various platforms, besides most implementations do not follow the same behavior. It is with this background that an alternate recommendation is given here.

2. TCP Port changes

PCEP listens on PCE TCP port (4189). The restriction of the source port to be the same has been removed. This allows the requirements of reliable messaging and flow control to be met without further protocol work.

The protocol needs to take care that there is only one request from a particular client, to prevent any DoS attacks, that may occur.

3. IANA Considerations

No new IANA consideration are raised by this document.

4. Security Considerations

This document raises no new security issues.

5. Acknowledgements

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