

Guidelines for Characterizing "OAM"

Carlos Pignataro, Adrian Farrel, Tal Mizrahi

[draft-ietf-opsawg-oam-characterization-09](#)

IETF 123
July 2025

The Goal of this Draft

- Provide clear and consistent guidelines for characterizing Operations, Administration, and Maintenance (OAM) mechanisms in packet networks.
- Replace ambiguous terms like "in-band" and "out-of-band" with precise, descriptive classifications.
- Non-goal:
 - This document does not change the meaning of any terms in any prior RFCs.

Status

- Oct 2024 – WG last call
- March 2025 – IETF 122
Outstanding comments from:
 - Tim Chown (OPS-DIR reviewer)
 - Benoit Claise (document shepherd)
 - Greg Mirsky
- March-July 2025
 - Major revision
 - Multiple iterations with the reviewers
 - Tal joined as a co-author

Main Changes since IETF 122

Version 09 vs. 04:

- Focused the document on **OAM classification**.
 - Removed some content (e.g., Extended OAM Abbreviations, Processing of OAM Packets by Nodes).
- Multiple clarifications and examples added.
- "Using Multiple Criteria" significantly updated.
- Active/passive/hybrid text updated, explicitly mentioning that these terms are consistent with RFC7799.
- Added text about the importance of equal-forwarding-treatment.

OAM Classification

RFC 7799 {

- Active
- Passive
- Hybrid

New term {

- **In-packet**

- Path-Congruent
- Non-Path-Congruent

- Equal-Forwarding-Treatment
- Different-Forwarding-Treatment

RFC 7799 terminology is used as-is.

OAM Classification – Example 1

Example: IP Ping

RFC 7799 {

- Active
- Passive
- Hybrid

New term {

- **In-packet**

- Path-Congruent
- Non-Path-Congruent

- Equal-Forwarding-Treatment
- Different-Forwarding-Treatment

OAM Classification – Example 2

Example: IOAM [RFC9197]

RFC 7799

- Active
- Passive
- Hybrid

New term

- **In-packet**

- Path-Congruent
- Non-Path-Congruent

- Equal-Forwarding-Treatment
- Different-Forwarding-Treatment

Next Steps

- The authors believe the document is ready.