

# OSPF Monitor Node

(draft-retana-lsr-ospf-monitor-node-00)

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# Motivation/Goals

*This document specifies mechanisms that allow a node to monitor an OSPF network actively without influencing the topology or affecting its stability.*

Characteristics/Requirements: authentication, non-transit monitor node, no LSA propagation (from monitor node), no link advertisement, no traffic to the monitor node, (monitor node) shouldn't become DR/BDR.

# Monitoring Interface

Router interface configurable parameters:

DoNotAdvertiseLink: MUST NOT include a corresponding interface description in the router-LSA.

DoNotRequestAndIgnoreLSAs: MUST consider its Link state request list empty...[and]...MUST consider the LS age of any received LSA to be equal to MaxAge and process it according to Section 13 of [RFC2328].

	Monitoring Interface
authentication	✓
non-transit	✓
no direct traffic	✓
no LSA propagation	✓
no link advertisement	✓
no DR/BDR eligibility	✓

# Monitor Node Option

New Option in the Extended Options and Flags (EOF) Link-Local Signaling (LLS) TLV [RFC5613]. The new option is called Monitor (M-bit) and has a value of TBD.

Other routers on the same link MUST: - -

- Consider the Monitor Node ineligible for the DR selection process.
- Consider its Link state request list empty with respect to the Monitor Node.
- Consider the LS age of any LSA received from the Monitor Node is equal to MaxAge.

	Monitor Node Option
authentication	✓
non-transit	✓
no direct traffic	✓
no LSA propagation	✓
no link advertisement	*
no DR/BDR eligibility	✓

# Other Alternatives

	Monitoring Interface	Monitor Node Option	Exchange	R-bit (rfc5340)	H-bit (rfc8770)	Hide Transit Link (rfc6860)
authentication	✓	✓	✓	✓	✓	✓
non-transit	✓	✓	✓	✓	✓	✗
no direct traffic	✓	✓	✗	✗	✗	✓
no LSA propagation	✓	✓	✗	✗	✗	✗
no link advertisement	✓	*	✓	✗	✗	*
no DR/BDR eligibility	✓	✓	✗	✗	✗	✗

# Next Steps

- Update and clarify intention and behavior.
- Consider Controller Node (Robert) (?).
  
- More discussion and feedback.
  
- Consideration for WG adoption.