

SMF-07 Update

draft-ietf-manet-smf-07

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Background Refresh

- Still EXP submission target
- We considered a WGLC on version 06
- But, decided to make more improvements
 - Many editorial a few technical
- -07 Submission on Feb 25

SMF-06 -> 07

- Core design remains the same
- Revised areas
 - Editorial throughout
 - Some TLV revisions and more clarification on IANA and namespace issues.
 - TLV types revised slightly related to IANA assignments
 - Relay Algorithm TLVs
 - Router Priority TLVs
 - Appendices Relay Set Selection Algorithm descriptions updated
 - Intent was to improve and clarify implementation issues
 - More thoroughly addressed multiple interface operation and considerations.

SMF “Relay Algorithm” TLVs

- Two types:
 - SMF_RELAY_ALG (message TLV), and
 - SMF_NBR_RELAY_ALG (addr block TLV)
- Both use an 8-bit “value” field:

Value	Algorithm
0	CF
1	S-MPR
2	E-CDS
3	MPR-CDS
4-127	Future Assignment with STD action
128-239	No STD action required
240-255	Experimental Space

- Use of SMF_RELAY_ALG TLV could be REQUIRED in a deployment to indicate SMF participation.
 - Should this be a RECOMMENDED operational policy?

SMF “Router Priority” TLVs

- Two types:
 - SMF_RTR_PRIORITY (message TLV)
 - SMF_NBR_RTR_PRIORITY (addr block TLV)
- Currently defined with an 8-bit “value” field.
- Possibly a more flexible SMF “metric” TLV type might defined to serve this role?
 - More efficient use of TLV type space
 - Sub-typing could allow different metric types to be identified.

Possible Future Minor Changes

- Consideration for a well-known range of site-scoped IPv6 multicast
 - Presently one
 - Could provide further flexibility
- Further clarification of multiple interface operation

Proposed Plan

- First Goal: Minor Revision/WGLC/IESG submission phase
- Follow-on Areas
 - Better discussion of gateway interoperability and interaction
 - Best practice?
 - Group-specific extensions
 - Standard Forwarding Information Base primitives
 - SMF MIB
 - SEAL
 - Encapsulation variant using SMF techniques for CDS and DPD