Comments from last meeting

• How does an ETR know that it can switch to reliable transport?
• Add additional transport protocols: QUIC
How does the ETR know it can use reliable transport?

• An ETR starts with the periodic UDP registration

• The periodic UDP registration is maintained until an optional reliable session is established

• How does the ETR know that it can establish a reliable transport session?
Proposal in the mailing list

- (1) Since we have bits available in the Map-Register header, ETR sets a new "RT" bit to indicate to the Map-Server that it wants to use TCP.

- (2) If the Map-Server sends a Map-Notify with the "RT" bit set (i.e. copied from the Map-Register), then the ETR knows the Map-Server is listening on TCP port 4342 and will accept TCP connections.

- (3) If the Map-Server sets the "RT" bit to zero, then the ETR knows it cannot use RT. This can be due to a MS implementation that supports but doesn't want to use RT (so it clears the bit in the Map-Notify) or to an old implementation that doesn't know about the bit so it would default to 0.
## Map-Register RT bit

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Field Description
- **Type**: 3 byte field indicating the type of the record.
- **P**: Presence bit, indicating if the record is present or not.
- **S**: Sequence bit, indicating if the record is the first or last in a sequence.
- **I**: Index bit, used for record indexing.
- **Record Count**: 4 byte field indicating the number of records in the map.
- **Nonce**: 8 byte field used as a unique identifier.
- **Key ID**: 2 byte field indicating the key identifier.
- **Algorithm ID**: 2 byte field indicating the algorithm identifier.
- **Authentication Data Length**: 2 byte field indicating the length of the authentication data.
- **Authentication Data**: Variable length field containing the authentication data.
- **Record TTL**: 2 byte field indicating the time to live of the record.
- **Locator Count**: 4 byte field indicating the number of locators.
- **EID mask-len**: 2 byte field indicating the length of the EID mask.
- **ACT**: 2 byte field indicating the action code.
- **EID-Prefix-AFI**: Variable length field containing the EID prefix and AF number.
- **EID-Prefix**: Variable length field containing the EID prefix.
- **Priority**: 2 byte field indicating the priority.
- **Weight**: 2 byte field indicating the weight.
- **Unused Flags**: Variable length field containing unused flags.
- **Loc-AFI**: 2 byte field indicating the locator AF number.
- **Locator**: Variable length field containing the locator.
Map-Notify RT bit

Should we use the same location for the bit in the Map-Notify?
QUIC support

• Working on incorporating QUIC support in the draft

• Two outstanding points:
  1) Should we reserve a UDP port other than 4342? Should we use default QUIC ports?
  2) How does the ETR choose a specific reliable transport protocol?
     • Leaning towards making the option an implementation choice
     • The ETR should always be able to try the different protocols that it supports until it succeeds establishing as session.
Comments, Questions, WG Adoption?