

# 16jm Ad Hoc Group Recommendations on Basic Constructs for 16m Relay Usage Models

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None

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For informing TGM about the discussions that took place in the 16jm AHG regarding 16m Usage Models.

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# **16jm Ad Hoc Group Recommendations on Basic Constructs for 16m Relay Usage Models**

*Prepared by*

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# Usage Model Straw Poll Results

Basic Construct	Entities	Consider (%)	Consolidated Results
Multi-Hop Relay (Tree Infrastructure)	BS ↔ RS1 ↔ RS2 ↔ MS	79%	Consider: 15 Do not Consider: 4
Mobile Relay	BS ↔ Mobile RS ↔ MS	58%	Consider: 11 Do not Consider: 8
MS - MS Direct Communication	MS1 ↔ MS2	42%	Consider: 8 Do not Consider: 11
MS relaying for an out of coverage MS	BS ↔ MS1 ↔ MS2	32%	Consider: 6 Do not Consider: 13
RS - RS Direct communication (Mesh Infrastructure)	RS <sub>x</sub> ↔ RS <sub>y</sub>	32%	Consider: 6 Do not Consider: 13
Local Forwarding	MS1 ↔ RS ↔ MS2	63%	Consider: 12 Do not Consider: 7
Shared BS	Shared BSs (BS1, BS2) ↔ RS ↔ MS	68%	Consider: 13 Do not Consider: 6
RS group	BS ↔ RS group ↔ MS.	68%	Consider: 13 Do not Consider: 6
MS relaying for an in coverage MS	BS ↔ MS <sub>x</sub> ↔ MS <sub>y</sub>	37%	Consider: 7 Do not Consider: 12

# Result Summary

- Unanimous Support
  - None
- >75% support
  - Multi-hop Relay, more than 2-hop
- >50% support
  - Mobile-RS (BS – Mobile RS – MS)
  - Local Forwarding (MS – RS - MS)
  - Shared BS ([BS1, BS2] – RS - MS)
  - RS groups (BS – [RS1, RS2, .., RSn] – MS).
- <50% support
  - MS-MS direct communication
  - RS-RS direct communication (Mesh Infrastructure)
  - MS relaying for an out-of-coverage MS
  - MS relaying for an in-coverage MS.
- Other comments
  - Transmission schemes such as simultaneous UL/DL Transmission, Full Duplex Relay, etc. (which are not bound to any specific construct) to be considered in FS discussions.

# AHG Recommendation

(To be presented at the TG)

- Usage models constructs with  $>75\%$  support to be considered in scope of 16m relay.
- Usage models constructs with  $< 50\%$  support to be not considered any further in TGm relay.
- TG to decide on which of the usage models constructs, that have  $>50\%$  support, should be considered.

# SDD Text for specifying 16m Relay Scope

- The following text should be included in Section 16 of the SDD (08/003r1)
  - If the TG agrees to support constructs with >75% support,
    - [Proposed Text:] 16m should consider mechanisms for supporting more than 2- hop relay.
  - If the TG agrees to rule out the constructs with <50% support constructs,
    - [Proposed Text:] RS-RS communication among RSs on different paths is out of scope 16m relay. MS-MS direct communication and MS relaying is out of scope of 16m relay.
  - If the TG agrees to consider Mobile RS,
    - [Proposed Text:] 16m should consider mechanisms for supporting mobile relay.
  - If the TG agrees to consider Local forwarding
    - [Proposed Text:] 16m should consider mechanisms for enabling an RS to support data forwarding between its subordinate MSs.
  - If the TG agrees to consider Shared BS
    - • [Proposed Text:] 16m should consider mechanisms for enabling an RS to forward information to/from more than one 16m BSs.
  - If the TG agrees to consider RS group
    - [Proposed Text:] 16m should consider mechanisms for supporting RS grouping.