

PMIPv6 multicast handover optimization by the Request of Active Multicast Subscription (RAMS)

<draft-contreras-multimob-rams-04.txt>

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Paris, MULTIMOB WG, March 2012

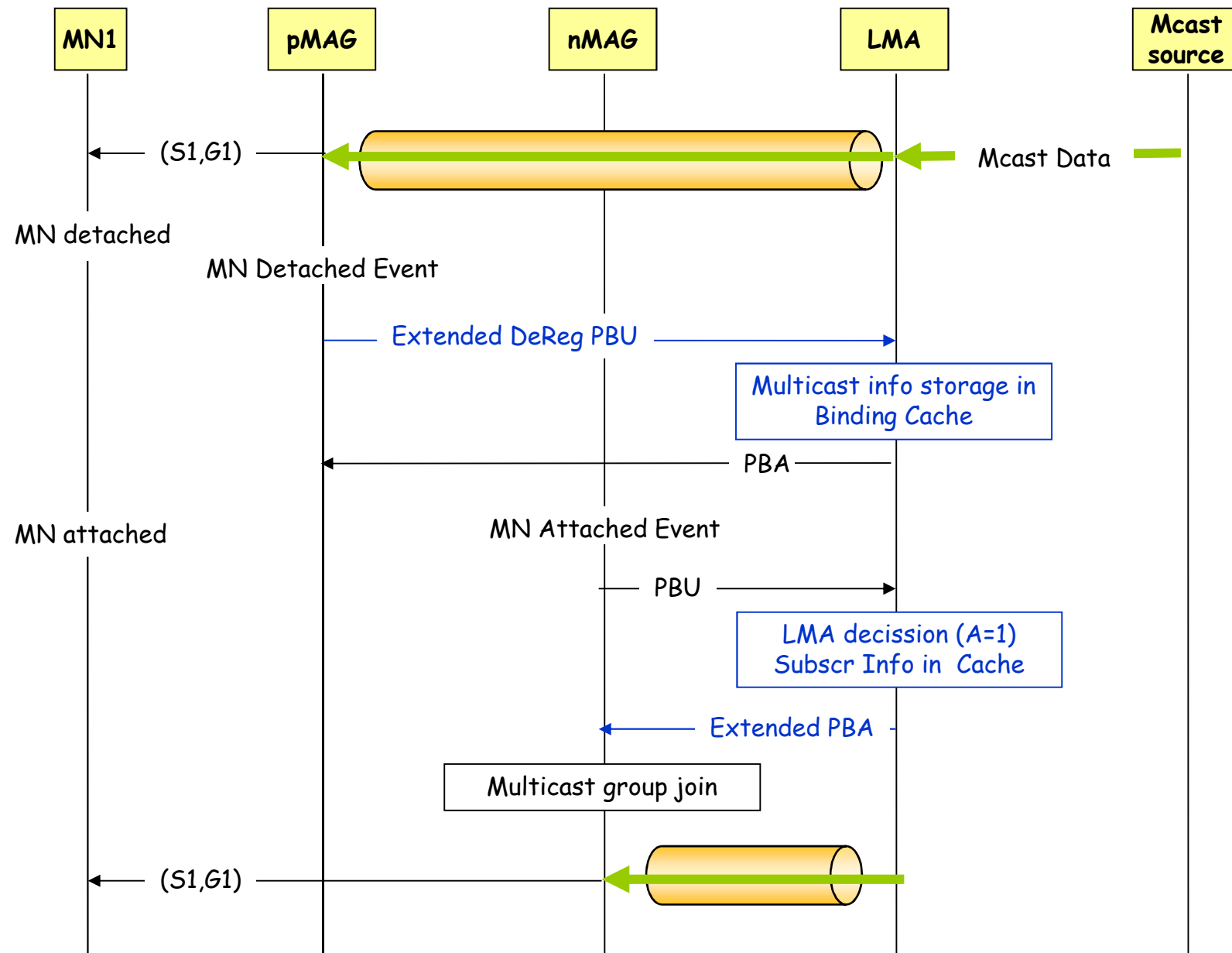
Proposal Status

- The draft covers the MULTIMOB charter goal of optimizing multicast traffic during a handover
- Initial draft version submitted for 78th IETF meeting in Maastricht
- Proposal included in re-chartering discussion during 78th IETF
- Draft presented in Beijing (79th), Quebec (81st) and Taipei (82nd) IETF meetings
- Updated version submitted for 83rd IETF:
<http://tools.ietf.org/html/draft-contreras-multimob-rams-04>

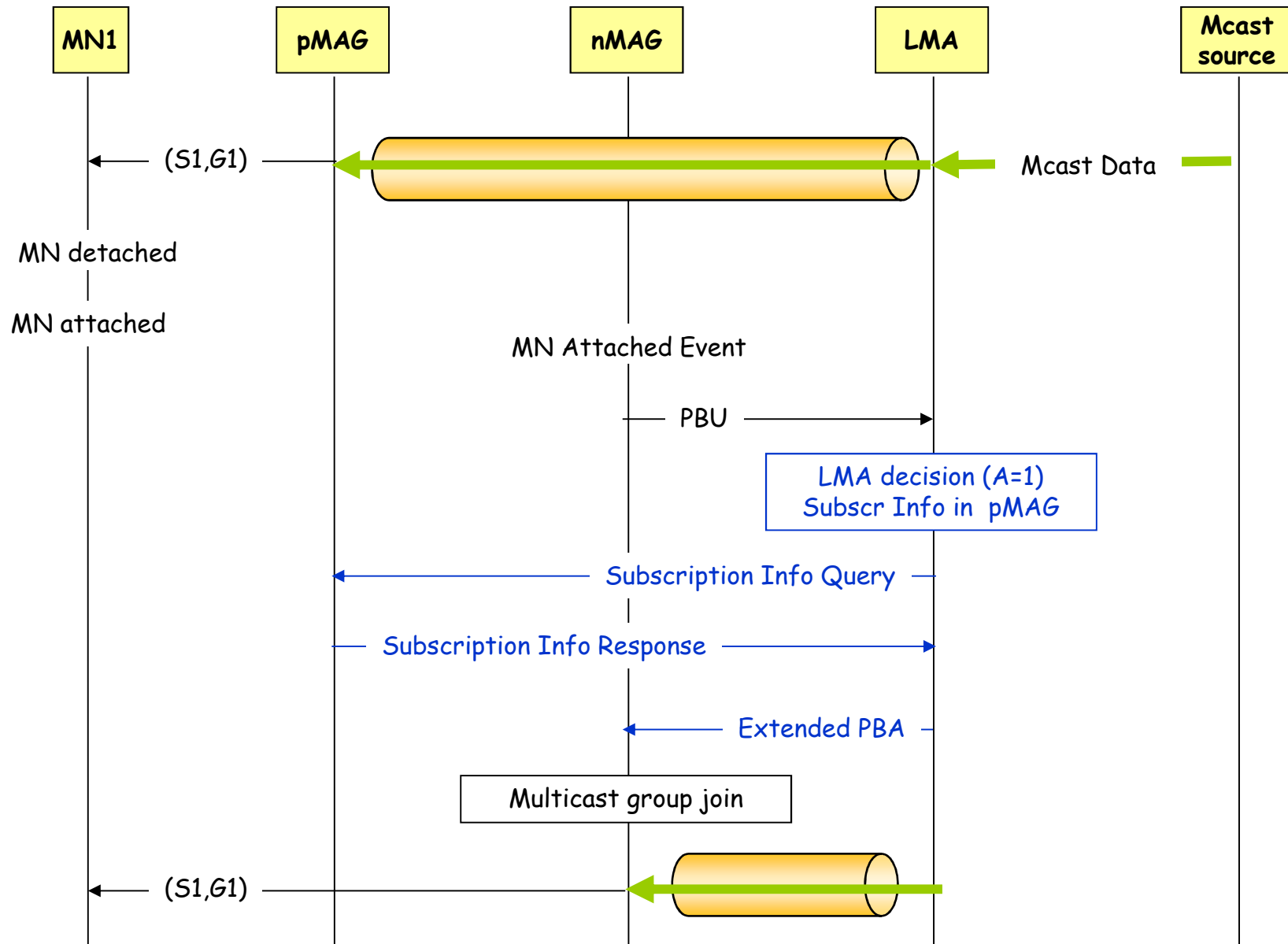
Proposal characteristics

- **Generic**
 - It is a generic procedure, not dependent on layer-2 trigger capacities at the MN nor on the capabilities of the radio technology in use (deterministic performance for any scenario)
- **Simple**
 - It keeps simple the management, control and data plane functions at the MAG and the LMA
 - No additional requirements/features needed on the MNs (follows RFC5213 approach)
- **Robust**
 - It is based on the fast transfer of subscription information internally to the network by using homogeneous, high-bandwidth, error-free wired links among carrier-class devices
- **Precise**
 - It is based on the information provided by the previous MAG which definitely ensures the correctness about the subscription information
- **Light extension to PMIPv6**
 - 2 flags for governing the procedure
 - 4 extra messages to support the extension (2 of them only required in reactive HO case)
- **Minimal development and deployment impact**
 - It only extends the base PMIPv6 protocol (RFC 5213)

Proactive handover case

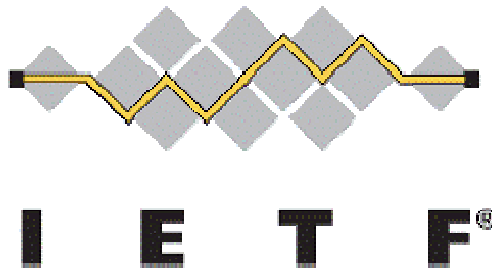


Reactive handover case



Changes from last version and next steps

- Comments from the reviews have been addressed
 - ✓ Additional constructive reviews are expected to improve and complete the proposal
- Flag handling has been updated for smooth backward compatibility
- Draft text has been re-structured to improve clarity
- Dirk von Hugo added as contributor
 - His input and comments have been integrated during the last update
- **Next step:** adoption as WG document for a basic multicast handover optimization mechanism in PMIPv6



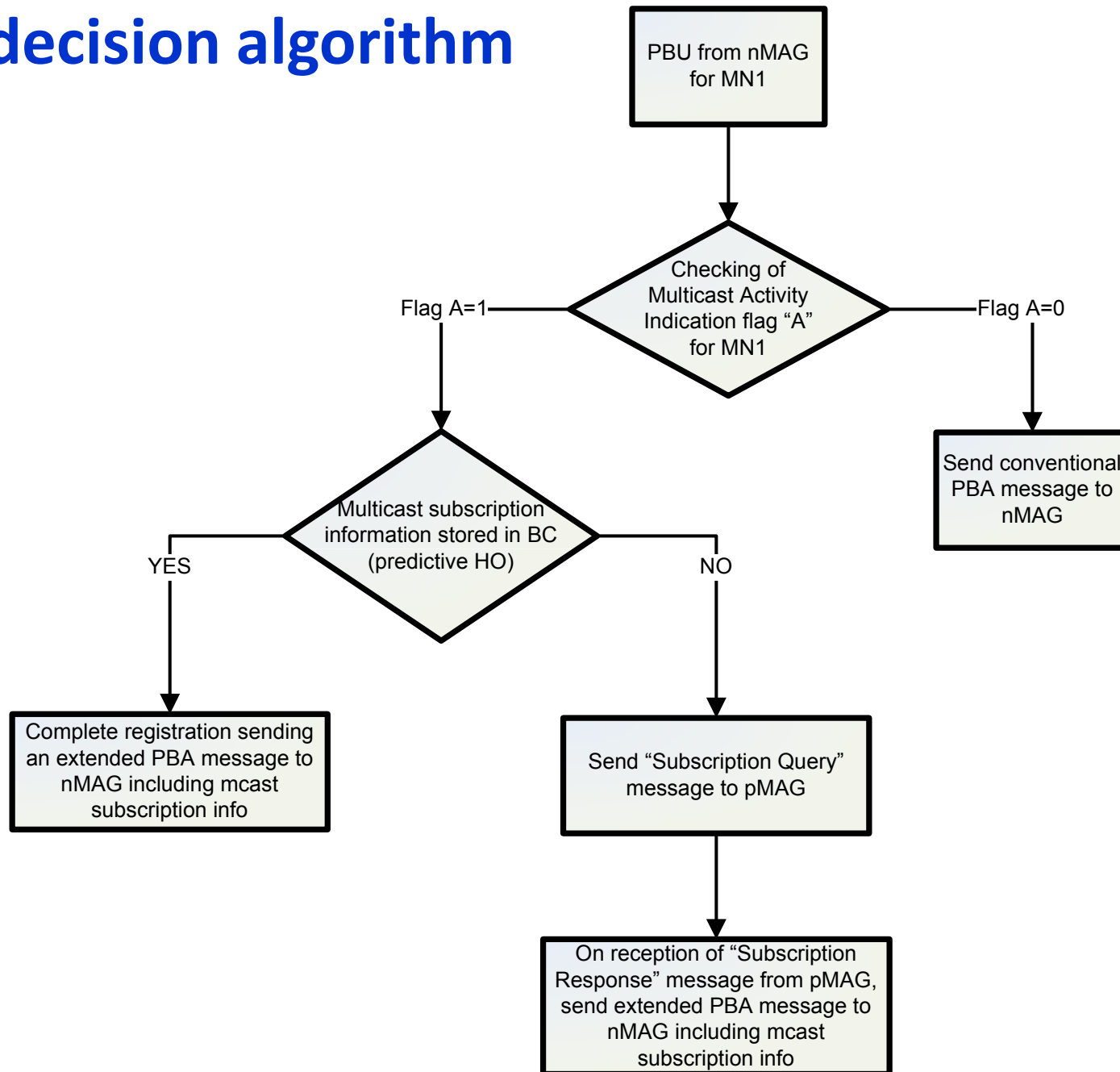
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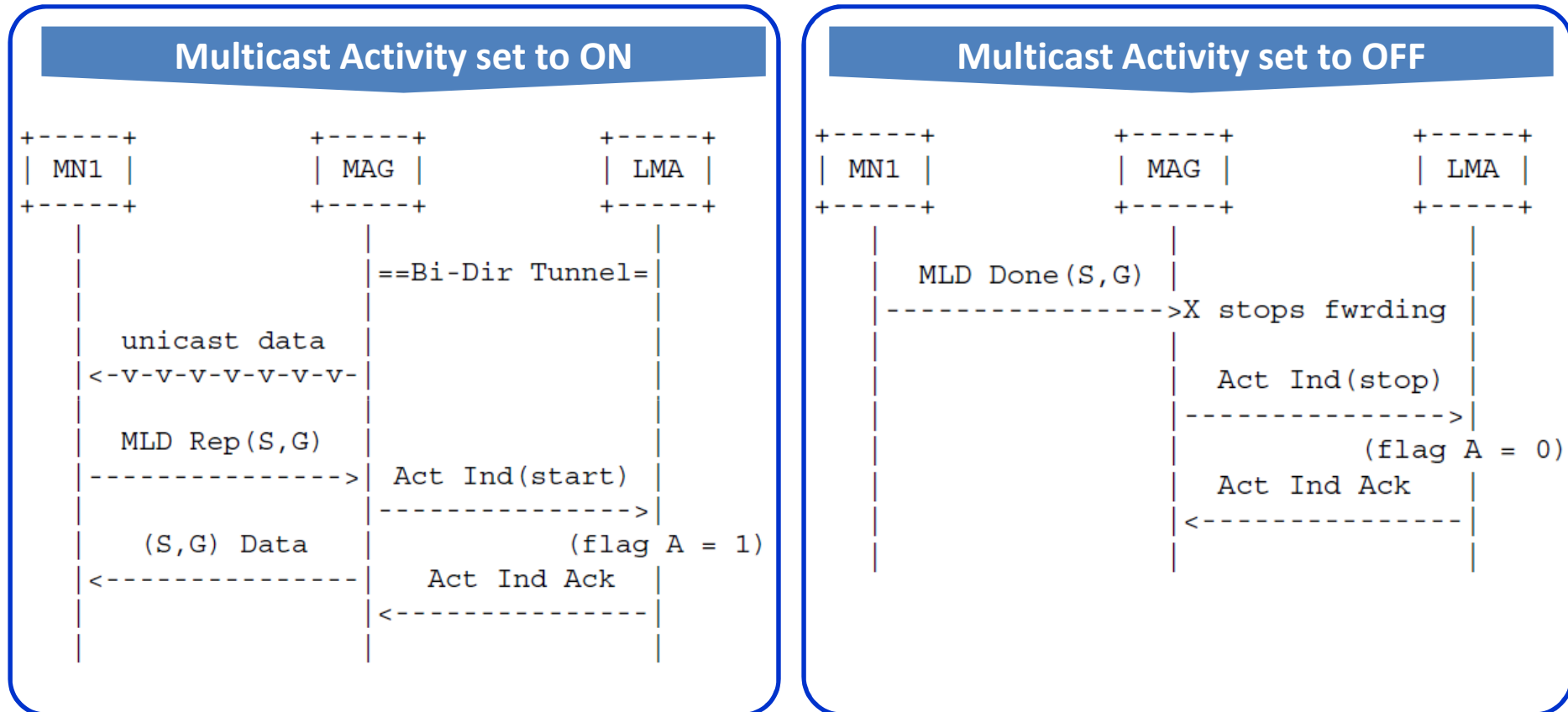
Backup slides

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LMA decision algorithm



Multicast Activity Indication



- The Multicast Activity flag is ON if there is an on-going active subscription, and OFF otherwise