

DIME WG

IETF 86

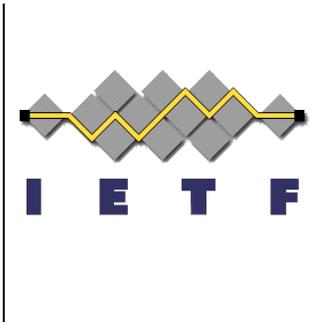
Diameter Group Signaling

draft-ietf-diameter-group-signaling-00

Wednesday, March 13th, 2013

Lionel Morand





Motivations

- Reduce signaling in those use cases that require many Diameter sessions to be modified or terminated at the same time
- Add group signaling to existing Diameter applications with minimal impact and ambiguity
- Describe the problem space in an application neutral fashion (best practices?) to aid other SDOs in tackling this problem



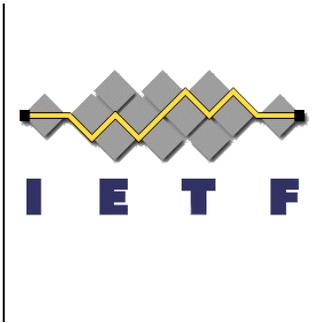
Two Problem Aspects

1. Managing group assignments
 - How to add or remove sessions from groups
 - Guidelines for modifying group assignments
2. Manipulating groups of sessions
 - Defines new formatting of commands for group operations
 - Defines rules how group operations can be applied to session state machines

Document history & work item status



- draft-ietf-dime-group-signaling-00 published in June 2012 (Expired)
- Needs revision to reflect the WG's common view on how bulk signaling and operations can be accomplished
- Discussion and evaluation of formatting options
- Next: Progress draft towards stable state



Brief Recap

- 2 approaches presented @IETF84
 - dedicated Group Commands
 - single Bulk Operations command
- 3rd approach proposed during the meeting
 - re-using existing Diameter messages and command codes, with additional AVPs.
 - Group-Session-ID AVP, Group-Session-Action AVP
 - WG preferred approach

Reusing Existing Commands: Overview



- Working Assumptions:
 - Minimal impacts on existing implementations
 - Rely on command extensibility capability provided by the Diameter Base protocol.
 - Reuse of existing commands will ease adoption
- Existing command CCF are enhanced with optional [AVPs] providing support of group management
 - e.g. Session-Group-Id AVP, Session-Group-Action AVP
- When included in a command, it is up to the protocol designers to set or clear the M-bit.

Reusing Existing Commands: NASREQ Example

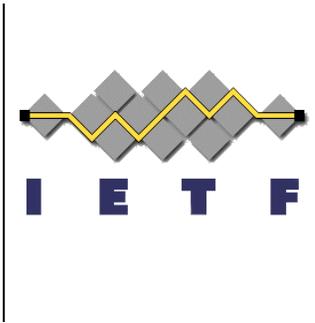


- Managing group assignments
 - Session-Group-Id AVP (M-bit cleared) included in AAR, used to:
 - indicate that the group management feature is supported by the NAS
 - NAS not supporting the capability will not include the AVPs
 - indicate the group Id assigned by the NAS to the session
 - Session-Group-Id AVP (M-bit cleared) included in AAA, used to:
 - indicate that the group management feature is supported by the server
 - server not supporting the new AVPs will ignore those received in the request and not include these AVPs in the answer
 - indicate the group Id assigned by the server to the session

Reusing Existing Commands: NASREQ Example



- Server initiated group re-auth/session abortion:
 - Session-Group-Id and Session-Group-Action AVPs (M-bit cleared) included in RAR/ASR in addition to the session-id assigned to one of the user in the group
 - the NAS performs the required action for the given session-id and the same action for the other user identified by the Session-Group-Id AVP
- Client initiated group session termination
 - Session-Group-Id and Session-Group-Action AVPs (M-bit cleared) included in STR
 - the server performs the required action for the given session-id and the same action for the other user identified by the Session-Group-Id AVP



Next Steps

- Discussion initiated on the mailing list
 - Setting of the M-bit?
 - Use of the Session-Id AVP?
 - Advertizing support of Group management?
 - Link with Overload Control
- Next Steps:
 - Confirm interest for this work!!!
 - Agree on working assumptions
 - Produce a new version of the draft based on the agreed working assumptions